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HARVARD MEDICAL SCHOOL

AND

SCHOOL OF DENTAL MEDICINE

25 SHATTUCK STREET
BOSTON • MASSACHUSETTS



1961-1962

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HARVARD MEDICAL SCHOOL

AND

SCHOOL OF DENTAL MEDICINE

25 SHATTUCK STREET
BOSTON • MASSACHUSETTS

WITH AN ANNOUNCEMENT FOR 1962-1963



1961 — 1962

PUBLISHED BY HARVARD UNIVERSITY
CAMBRIDGE, MASSACHUSETTS

CONTENTS

MEDICAL SCHOOL CALENDAR	6
PRESIDENT AND FELLOWS OF HARVARD COLLEGE	9
THE BOARD OF OVERSEERS	10
COMMITTEE TO VISIT THE MEDICAL SCHOOL AND THE SCHOOL OF DENTAL MEDICINE	12
ADMINISTRATIVE OFFICERS	13
ADMINISTRATIVE BOARD	14
HISTORY AND ORGANIZATION	16
BUILDINGS	18
HOSPITAL FACILITIES	19
HOSPITAL APPOINTMENTS	28
SCHOOL OF DENTAL MEDICINE	28
LIBRARIES	29
WARREN ANATOMICAL MUSEUM	30
REQUIREMENTS FOR ADMISSION	31
ADMISSION TO ADVANCED STANDING	35
ADMISSION TO ADVANCED STANDING SCHOOL OF DENTAL MEDICINE	36
INFORMATION FOR SERVICEMEN	36
APPLICATIONS FROM FOREIGN STUDENTS	37
FOREIGN STUDENTS	38
SPECIAL STUDENTS	39
GENERAL REGULATIONS	40
Examinations and Promotion	40
Promotion Boards	40
General Examination	41
Rules Governing Promotion	41
Leaves of Absence	42
Withdrawal from the School	42
DEGREES	43
HIGHER DEGREES IN THE MEDICAL SCIENCES	45
Doctor of Philosophy and Master of Arts	45
Doctor of Medical Sciences	47
STUDENT EMPLOYMENT	48
MICROSCOPES	49
FEES AND EXPENSES	49
Dormitory	51
Dining Hall	52
Student Health Service	52

CONTENTS

FELLOWSHIPS AND SCHOLARSHIPS	53
Fellowships	53
Scholarships	57
School of Dental Medicine Scholarships	63
Fellowships and Scholarships in other Departments of the University	65
PRIZES	82
LOAN FUNDS	83
LECTURESHIPS	86
CANCER COMMISSION OF HARVARD UNIVERSITY	87
RESEARCH FUNDS	87
COURSES FOR GRADUATES	88
SCHOOL OF PUBLIC HEALTH	89
OPPORTUNITIES FOR RESEARCH	89
THE UNDERGRADUATE ASSEMBLY	90
ANNOUNCEMENT OF COURSES	90
General Plan of the First Two Years	90
General Plan of the Third and Fourth Years	93
Elective and Voluntary Courses	94
The Tutorial Program and Student Research	94
Anatomy	96
Physiology	100
Biological Chemistry	102
Bacteriology	108
Pathology	113
Tropical Public Health	120
Pharmacology	121
Legal Medicine	125
Medicine	126
Dermatology	148
Neurology and Psychiatry	150
Neurology	167
Neuropathology	168
Psychiatry	169
Ophthalmology	171
Howe Laboratory of Ophthalmology	173
Radiology	174
Pediatrics	177
Obstetrics and Gynecology	187
Preventive Medicine	193
Surgery	196
Orthopedic Surgery	210
Otology and Laryngology	213
Dental Medicine Courses in the Medical School	215

CONTENTS

TABULAR VIEW OF SCHEDULES AND REGISTRATION	217
DEGREES CONFERRED IN 1961	222
INTERNSHIPS, CLASS OF 1961	226
STUDENTS ENROLLED IN MEDICAL SCHOOL	233
Summary	250
Colleges Represented.	251
Medical Schools Represented	252
STAFF OF SCHOOL OF DENTAL MEDICINE	253
ANNOUNCEMENT OF COURSES, SCHOOL OF DENTAL MEDICINE	257
DEGREES CONFERRED IN SCHOOL OF DENTAL MEDICINE IN 1961	264
STUDENTS ENROLLED IN SCHOOL OF DENTAL MEDICINE	264
Summary	266
Colleges Represented	267
Dental Schools Represented	267
PROFESSORS EMERITI	268
OFFICERS OF ADMINISTRATION AND INSTRUCTION	270
INDEX	297

HARVARD MEDICAL SCHOOL

CALENDAR

ACADEMIC CALENDAR FOR 1961-62

<i>Monday</i>	<i>June 12</i>	Summer courses begin for fourth year class.
<i>Tuesday</i>	<i>July 4</i>	Independence Day: a holiday.
<i>Monday</i>	<i>September 4</i>	Labor Day: a holiday.
<i>Friday</i>	<i>September 15</i>	Registration day for first and second year classes.
<i>Monday</i>	<i>September 18</i>	ACADEMIC YEAR begins for first and second year classes.
<i>Friday</i>	<i>September 22</i>	Registration day for third year class.
<i>Monday</i>	<i>September 25</i>	ACADEMIC YEAR begins for third year class.
<i>Thursday</i>	<i>September 28</i>	Registration day for fourth year class.
<i>Friday</i>	<i>September 29</i>	ACADEMIC YEAR begins for fourth year class.
<i>Thursday</i>	<i>October 12</i>	Columbus Day: a holiday.
<i>Saturday</i>	<i>November 11</i>	Veterans' Day: a holiday.
<i>Thursday</i>	<i>November 23</i>	Thanksgiving Day: a holiday.
<i>Monday</i>	<i>December 11</i>	SECOND TRIMESTER begins for third year class.
<i>December 21, 1961- January 3, 1962</i>		RECESS for first, second and third year classes.
<i>Monday</i>	<i>January 15</i>	SECOND HALF YEAR begins for second year class.
<i>January 22-27</i>		Examination period for first year class.
<i>Monday</i>	<i>January 29</i>	SECOND HALF YEAR begins for first year class.
<i>Thursday</i>	<i>February 22</i>	Washington's Birthday: a holiday.
<i>Monday</i>	<i>March 12</i>	THIRD TRIMESTER begins for third year class.
<i>Saturday</i>	<i>March 31</i>	Last day for filing application for the degree of M.D. in June 1962. Last day for filing application for scholarship for 1962-1963.

MEDICAL SCHOOL

<i>April 15-22</i>	RECESS for first, second and third year classes.
<i>Wednesday May 30</i>	Memorial Day: a holiday.
<i>Friday June 1</i>	Alumni Day.
<i>Saturday June 2</i>	Class Day for Class of 1962.
<i>June 4-9</i>	Examination period for first, second and third year classes.
<i>Thursday June 14</i>	Commencement.

ACADEMIC CALENDAR FOR 1962-63

<i>Monday June 11</i>	Summer courses begin for fourth year class.
<i>Wednesday July 4</i>	Independence Day: a holiday.
<i>Monday September 3</i>	Labor Day: a holiday.
<i>Friday September 14</i>	Registration day for first and second year classes.
<i>Monday September 17</i>	ACADEMIC YEAR begins for first and second year classes.
<i>Friday September 21</i>	Registration day for third year class.
<i>Monday September 24</i>	ACADEMIC YEAR begins for third year class.
<i>Thursday September 27</i>	Registration day for fourth year class.
<i>Friday October 12</i>	Columbus Day: a holiday.
<i>Monday November 12</i>	Veterans' Day: a holiday.
<i>Thursday November 22</i>	Thanksgiving Day: a holiday.
<i>Wednesday December 12</i>	SECOND TRIMESTER begins for third year class.
<i>December 23, 1962- January 6, 1963</i>	RECESS for first, second and third year classes.
<i>Monday January 14</i>	SECOND HALF YEAR begins for second year class.
<i>February 4-8</i>	Examination period for first year class.
<i>Monday February 11</i>	SECOND HALF YEAR begins for first year class.
<i>Friday February 22</i>	Washington's Birthday: a holiday.
<i>Monday March 11</i>	THIRD TRIMESTER begins for third year class.
<i>Monday April 1</i>	Last day for filing application for the degree of M.D. in June 1963. Last day for filing application for scholarship for 1963-64.

HARVARD UNIVERSITY

April 14-21

RECESS for first, second and third year classes.

Thursday May 30

Memorial Day: a holiday.

Friday May 31

Alumni Day.

Saturday June 1

Class Day for the Class of 1963.

June 3-8

Examination period for second and third year classes.

Monday June 10

Second half year ends for first year class.

Thursday June 13

Commencement.

THE PRESIDENT AND FELLOWS OF
HARVARD COLLEGE

This Board is commonly known as the CORPORATION

PRESIDENT

NATHAN MARSH PUSEY, PH.D., LL.D., L.H.D.

FELLOWS

CHARLES ALLERTON COOLIDGE, A.B., LL.B.

WILLIAM LUKE MARBURY, A.B., LL.B.

RICHMOND KEITH KANE, A.B., LL.B.

THOMAS STILWELL LAMONT, A.B.

FRANCIS HARDON BURR, A.B., LL.B.

TREASURER

PAUL CODMAN CABOT, A.B., M.B.A.

SECRETARY TO THE CORPORATION

DAVID WASHBURN BAILEY, A.B.

THE BOARD OF OVERSEERS

The PRESIDENT and the TREASURER of the University, *ex officio*, and the following persons by election: —

1962

EDWARD STREETER, A.B.

FREDERIC BENNETT WHITMAN, A.B., M.B.A.

FREDERICK AUGUST OTTO SCHWARZ, A.B., LL.B.

STANLEY MARCUS, A.B.

THOMAS HARRISON HUNTER, A.B., B.A., M.D.

1963

RAYMOND SANGER WILKINS, A.B., LL.B., S.J.D., LL.D.

DEVEREUX COLT JOSEPHS, A.B., LL.D.

DWIGHT PARKER ROBINSON, JR., A.B., M.B.A.

LAWRENCE EDWARD MALLINCKRODT, A.B., M.B.A.

JOHN FITZGERALD KENNEDY, S.B., LL.D., D.A.O., S.D. (hon.),
Dr.P.A. (hon.), Litt.D.

1964

FRANCIS BOYER, LL.D.

JAMES MORISON FAULKNER, A.B., M.D., S.D. (hon.)

ALEXANDER MOSS WHITE, A.B., LL.D.

WILLIAM GURDON SALTONSTALL, A.M., L.H.D., LL.D., LITT.D.,
Dr.P.A. (hon.), J.D. (hon.)

EDWIN ALLAN LOCKE, JR., A.B.

1965

HERMON DUNLAP SMITH, A.B.

JOSEPH EDWARD LUMBARD, JR., A.B., LL.B.

(The term expires, in each case, on Commencement Day of the year indicated.)

MEDICAL SCHOOL

COURTLANDT SHERRINGTON GROSS, A.B.
RALPH JOHNSON BUNCHE, A.M., PH.D., LL.D.
ALBERT LINDSAY NICKERSON, S.B.

1966

GEORGE ABBOTT BROWNELL, A.M., LL.B.
JOHN COWLES, A.B., LL.D., LITT.D., L.H.D.
NEIL HOSLER McELROY, A.B., LL.D.
HAROLD IRVING PRATT, A.B., M.B.A., LL.D.
CHARLES FRANCIS ADAMS, A.B., D.C.S. (hon.)

1967

JAMES PHINNEY BAXTER, 3D, A.M., PH.D., LL.D. (hon.)
ROBERT FREDERICK LOEB, M.D.
PAUL CASHMAN REARDON, A.B., LL.B.
NATHANEAL VINING DAVIS, A.B.
JAMES BROWN FISK, A.M. (hon.)

SECRETARY OF THE BOARD OF OVERSEERS

DAVID WASHBURN BAILEY, A.B. 25 Massachusetts Hall, Cambridge

ASSISTANT SECRETARY OF THE BOARD OF OVERSEERS

JAMES ROBBINS REYNOLDS, A.B. 28 Massachusetts Hall, Cambridge

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AND THE SCHOOL OF DENTAL MEDICINE

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ROBERT CUTLER, *Vice-Chairman*

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EUGENE N. BEESLEY
ABRAM BERKOWITZ
GERALD W. BLAKELEY, JR.
FRANCIS BOYER
JOHN R. BROBECK
CARL F. CORI
RUSSELL A. DIXON
JAMES M. FAULKNER
JOSEPH GARLAND
HUDSON HOAGLAND
HARVEY P. HOOD
PHILLIPS KETCHUM
ROBERT F. LOEB
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RUSSEL H. PATTERSON
PERRY R. PEASE
H. IRVING PRATT
JOHN R. QUARLES
ELLIOT L. RICHARDSON
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JOHN D. STEWART
MAURICE L. TANTER
HAROLD S. VANDERBILT
JOSEPH F. VOLKER
GEORGE G. WALKER
JOSEPH T. WALKER, JR.
RIDLEY WATTS
ROBERT WINTHROP
WILLIAM W. WOLBACH
CHARLES H. WOOD

ADMINISTRATIVE OFFICERS OF THE MEDICAL SCHOOL AND SCHOOL OF DENTAL MEDICINE

President: NATHAN MARSH PUSEY, PH.D., LL.D., L.H.D.

Office: 1 Massachusetts Hall, Cambridge.

Dean of the Medical School and of the Faculty of Medicine: GEORGE PACKER BERRY, M.D., LL.D., S.D. (hon.), LITT.D., L.H.D.

Dean of the School of Dental Medicine: ROY ORVAL GREEP, S.M., PH.D.

Associate Dean for Financial Affairs of the Faculty of Medicine: HENRY COE MEADOW, S.B.

Assistant Dean for Courses for Graduates of the Faculty of Medicine: EUGENE CHARLES EPPINGER, M.D.

Assistant Dean for Student Affairs of the Faculty of Medicine: JOSEPH WARREN GARDELLA, M.D.

Assistant Dean for Curricular Affairs of the Faculty of Medicine: GEORGE NICHOLS, JR., M.D.

Assistant Dean for Admission of the Faculty of Medicine: PERRY JAMES CULVER, M.D.

Assistant Dean of the School of Dental Medicine for Student Affairs: JAMES HOWARD OAKS, D.M.D.

Assistant to the Dean of the Faculty of Medicine: ALBERT JEAN EDWARD LEIGH, A.B.

Assistant for Planning and Development to the Dean of the Faculty of Medicine: LAURENCE ORLEN PRATT, A.B.

Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences: ERIC GLENDINNING BALL, PH.D., S.D. (hon.).

Director of the Medical Area Health Service: DONALD ASA TUCKER, M.D.

Director of Medical Information in the University News Office for the Medical Area: HERBERT ARTHUR SHAW, A.B.

Registrar: AUDREY NOREEN KOLLER, A.B.

Librarian: RALPH THEODORE ESTERQUEST, S.B., A.M.

The Offices of Administration of the Medical School are located in the Administration Building at 25 Shattuck Street; those of the School of Dental Medicine, at 188 Longwood Avenue.

HARVARD UNIVERSITY

The Bursar's Office is in Lehman Hall, Cambridge. It is open on all business days from 9:00 a.m. to 5:00 p.m., except Saturdays, for the receipt of fees, payments, and other financial business.

ADMINISTRATIVE BOARD OF THE FACULTY OF MEDICINE

NATHAN M. PUSEY, PH.D., LL.D., L.H.D., *President of the University (ex officio)*.

GEORGE P. BERRY, M.D., LL.D., S.D. (hon.), LITT.D., L.H.D., *Dean of the Faculty of Medicine and Professor of Bacteriology (ex officio)*.

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ROY O. GREEP, S.M., PH.D., *Dean of the School of Dental Medicine and Professor of Anatomy in the School of Dental Medicine (ex officio)*.

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DON W. FAWCETT, M.D., *Hersey Professor of Anatomy*.

THOMAS B. FITZPATRICK, M.D., *Edward Wigglesworth Professor of Dermatology*.

MEDICAL SCHOOL

A. STONE FREEDBERG, M.D., *Associate Professor of Medicine at the Beth Israel Hospital.*

ARTHUR T. HERTIG, M.D., *Shattuck Professor of Pathological Anatomy.*

MANFRED L. KARNOVSKY, PH.D., *Associate Professor of Biological Chemistry.*

COENRAAD F. A. MOORREES, D.D.S., *Associate Professor of Orthodontics at the Forsyth Dental Infirmary for Children.*

ELVIN V. SEMRAD, M.D., *Clinical Professor of Psychiatry.*

GEORGE W. THORN, M.D., *Hersey Professor of the Theory and Practice of Physic.*

THOMAS H. WILSON, M.D., PH.D., *Associate Professor of Physiology.*

HARVARD MEDICAL SCHOOL BOSTON

HISTORY AND ORGANIZATION

The Harvard Medical School was the third to be established in the United States and is the second oldest in point of consecutive years of service to medical education.

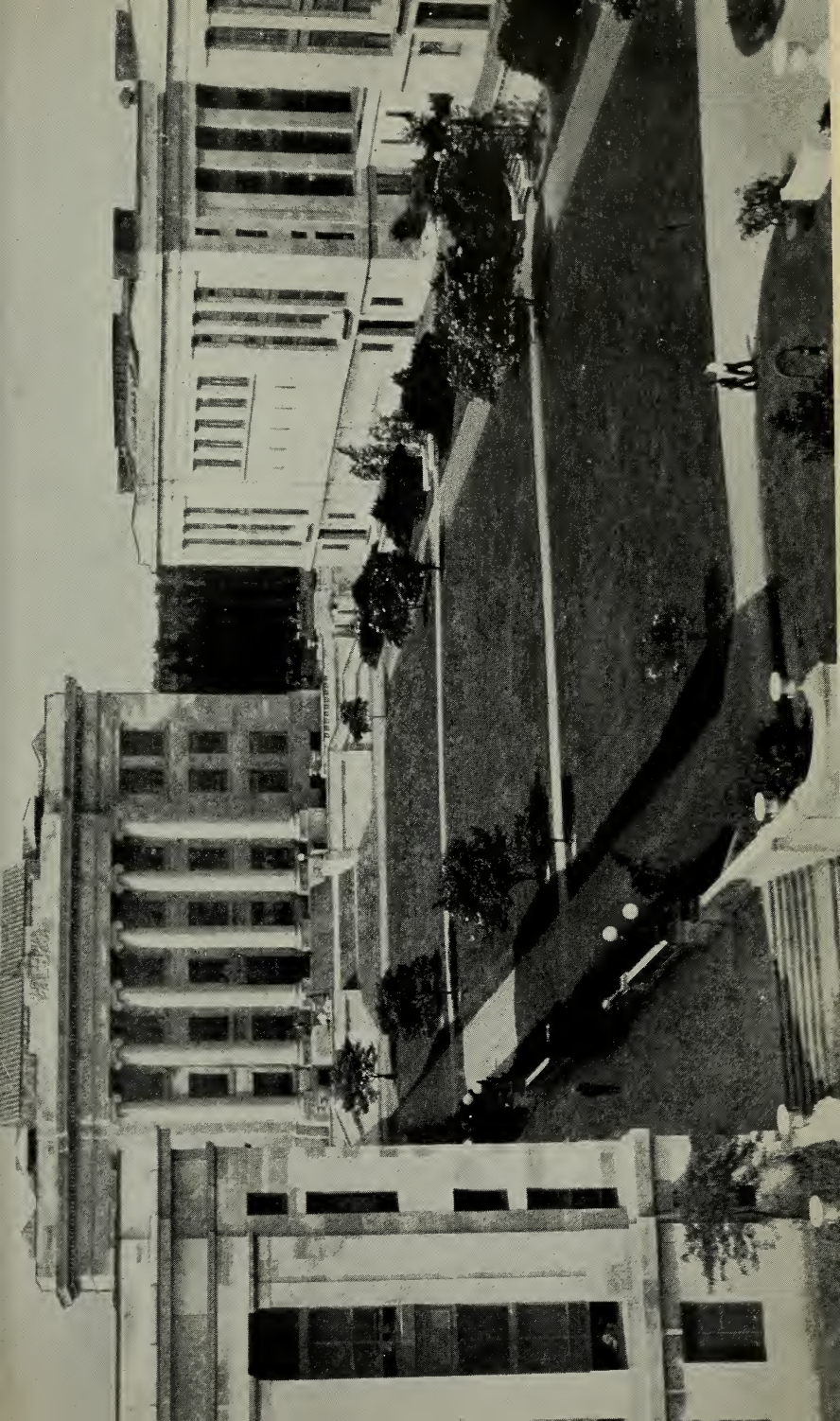
The first Medical School founded in the Colonies was in 1765 in the College of Philadelphia, now the University of Pennsylvania. In 1767 there was organized in Kings College (now Columbia University) a second Medical School. The curriculum of the latter School was suspended in 1776.

The Harvard Medical School is now nearing the close of its second century of teaching dedicated to the treatment and prevention of the ills of man.

On September 19, 1782 the President and Fellows of Harvard College adopted a report by President Joseph Willard and former Acting President Edward Wigglesworth embodying a plan for a medical school. This action was followed on November 22, 1782 by the appointment of Dr. John Warren of Boston as the first Professor of Anatomy and Surgery. In December, 1782, Dr. Benjamin Waterhouse became Professor of the Theory and Practice of Physic. The original faculty was completed in May, 1783, when Dr. Aaron Dexter was named Professor of Chemistry and Materia Medica.

The first degrees of Bachelor of Medicine were conferred in 1788. Until 1811, the degrees of Bachelor of Medicine and Doctor of Medicine were conferred, the former on graduation from the Medical School, the latter on examination at least seven years after graduation. In 1811 the degree of Doctor of Medicine was granted to graduates of that year and to earlier graduates who had not been admitted to it. All graduates since 1811 have received the degree of Doctor of Medicine.

During its long history, the Medical School has occupied seven





A, B, C, D, E. Harvard Medical School buildings. 1. Harvard School of Public Health. 2. Children's Hospital. 3. Beth Israel Hospital. 4. Vanderbilt Hall. 5. Boston Lying-in Hospital. 6. Harvard School of Dental Medicine. 7. Peter Bent Brigham Hospital. 8. Mass. Mental Health Center. 9. Judge Baker Guidance Center. 10. New England Deaconess Hospital.

MEDICAL SCHOOL

different sites. First meetings of the classes were held in the basement of Harvard Hall in the Harvard Yard. In 1783 classes were transferred next door to Holden Chapel, now the home of the Harvard Glee Club. To be close to such hospital facilities as might be developed in Boston, the Medical School, in 1810, moved out of the Yard to quarters at 49 Marlborough Street (now 400 Washington Street) in Boston. Six years later, the Medical School occupied the first structure built especially for its use, located on Mason Street in Boston. At this time, and for a period of 42 years thereafter, the School bore the title of "The Massachusetts Medical College of Harvard University."

In 1847, the Medical School again moved to new quarters at North Grove Street opposite the Massachusetts General Hospital. The next relocation of the School, in 1883, was at 688 Boylston Street. This, it was expected, would be the "home of medicine for generations." The School's vigorous growth soon made these quarters inadequate. Accordingly, new — and current — buildings were erected on Longwood Avenue. At their dedication on September 25, 1906, Dr. Charles W. Eliot, President of the University, in his acceptance address, described them as: "The largest single addition to the resources of the University which has ever been placed in the hands of the Corporation since it received its charter in 1650."

The present Medical School occupies 11 acres of an original 26 acre tract. The remaining 15 acres were reserved at the time for the hospital facilities that, it was expected, would be built around the School. Four hospitals and the Harvard Schools of Dental Medicine and Public Health are now located in this general area.

Five main buildings comprise the current Medical School. One houses the Library, Anatomical Museum and the administrative offices. Four others house the School's academic departments with extensive facilities for laboratory and clinical instruction and for research.

Prior to 1906 most clinical teaching was carried on in the Massachusetts General and Boston City Hospitals. Opportunities

HARVARD UNIVERSITY

for clinical teaching have increased greatly, since the Longwood Quadrangle was established, through the new hospitals surrounding the School and affiliated with it. Currently, no other medical school either in the United States or abroad can offer to its students the tremendous variety of clinical opportunities for teaching and investigation. Clinical advantages, from the student viewpoint, are not a matter of large hospitals only, but rather are related to the number of patients in these hospitals who are under the care of instructors on the staff of the Medical School and thus available for teaching purposes. Each student comes into intimate contact, under supervision, with patients in these hospitals, beginning in the second half of the second year. This student-patient relationship grows steadily during the third year. In the fourth year students serve as clinical clerks and give their whole time to the study of patients.

BUILDINGS

The Administrative Building (A), with over 40,000 square feet of floor space, contains the Faculty Room, the Administrative Offices of the Medical School, the Alumni Office, the Courses for Graduates Office, the joint library of the Medical School and the School of Public Health, the Women Students Club Room, the Warren Museum and the News Office.

The laboratory buildings, designated by the letters B, C, D, and E, are all constructed on the same general plan. Three consist of two parallel wings united at the front by an amphitheatre with a seating capacity of two hundred and fifty. The fourth (Building B) has been remodeled to provide added research laboratory facilities. Both the smaller rooms and the laboratories are designed on a unit system which greatly simplifies the changes required in suiting these to the needs of departments whose methods of teaching have changed since the rooms were originally designed.

The amount of floor space varies considerably in each of the

MEDICAL SCHOOL

four buildings, but the design is such that this variation is not apparent from the main quadrangle.

Building B accommodates the Departments of Anatomy, Histology, Embryology and Pharmacology.

Building C provides space for the Departments of Physiology and Biochemistry. In this building each wing has four floors and a total floor space of 72,000 square feet.

Building D is occupied by the Departments of Bacteriology, Biophysics, Pathology, Preventive Medicine, the Division of Medical Sciences, and also laboratories of the Department of Medicine. In this building there are five floors in one wing and three floors in the other, with a total floor space of over 72,000 square feet. The amphitheatre in this building is air-conditioned for student comfort. There are animal houses between Buildings B and D and between Buildings C and E.

Building E houses Legal Medicine, Tropical Public Health, and Anatomy. A new addition provides quarters for Surgical Research. There are three floors in one wing and four floors in the other, with a floor space of 50,000 square feet.

The clinical departments are housed in the various hospitals associated with the School. Vanderbilt Halls, the dormitories for male and female medical students, are immediately adjacent to the Medical School buildings.

HOSPITAL FACILITIES

THE MASSACHUSETTS GENERAL HOSPITAL

This general hospital, founded in 1811, in great part owes its existence to the foresight and ambition of two Harvard College graduates, Dr. John Warren, who became the first Surgeon-in-Chief, and Dr. James Jackson, the first Physician-in-Chief. Dr. Warren, in 1782, was named the first Professor of Anatomy and Surgery in the Medical School.

In a circular letter addressed (August, 1810) "to the most influential and wealthy citizens of Boston," Drs. Warren and Jack-

HARVARD UNIVERSITY

son noted the benefits that would accrue to the ill of the community through establishment of a hospital, and to the collateral advantages that would follow.

Among the latter, they wrote, "are the facilities for acquiring knowledge which it (the hospital) would give to the students in the medical school (Harvard) established in this town."

In 1811 the Massachusetts Legislature approved an Act to "incorporate certain persons, by the name of The Massachusetts General Hospital." The list of incorporators read much as a "Who's Who" of early America. Prominent in the list were the names of John Adams and John Quincy Adams.

The original charter sets out that the hospital was to care for the sick and insane persons of the Commonwealth.

The close and salutary relationship established at the outset between the Medical School and the Hospital has continued to the present.

In the Hospital there are services in medicine, surgery, pediatrics, dermatology, genito-urinary diseases, orthopedics, gynecology, neurology, neurosurgery, anaesthesia, dental medicine and psychiatry, all of which are used in giving instruction in these special departments of medicine. The hospital has 958 beds, 459 of them being available for teaching purposes. In the General Hospital, 11,547 patients were admitted in 1960. Large clinics are also used for instruction in the above clinical subjects. Clinic visits numbered 225,456 last year, of which 12,442 were first visits of new patients. 38,258 patients were treated in the emergency ward. Laboratories for pathology, bacteriology, chemistry, metabolism, medical and surgical research, and X-ray are maintained, and there is an excellent medical library, all of which are open to students in the Medical School.

In 1942 arrangements were made with the Vincent Memorial Hospital and the Hall-Mercer Hospital to care for their patients in the Massachusetts General Hospital. The Vincent occupies the three lower floors of the Vincent-Burnham Building, the three top floors comprising the Burnham Memorial for Children.

In 1943 the Collis P. Huntington Memorial Hospital and its

MEDICAL SCHOOL

associated laboratories of the Harvard Cancer Commission were transferred from their former location adjacent to the Medical School to the buildings of the Massachusetts General Hospital.

THE MASSACHUSETTS EYE AND EAR INFIRMARY

This hospital, incorporated in 1827, and associated with the Medical School since 1866, is equipped for teaching and research in diseases and conditions of the eye, ear, nose and throat. The two Chiefs of Service are Professors of the Faculty of the Medical School. There are service laboratories for bacteriology and pathology. Many of the research laboratories, among them the Howe Laboratory of Ophthalmology, are housed in a three story wing opened in 1956. The Eaton-Peabody Laboratory of Auditory Physiology (1959) and the Otolaryngological Biochemistry Laboratory (1960) are the two most recently established research facilities. There are 170 beds for service, semi-private and private patients, the majority of them available for teaching. The clinics serve ambulatory medical and surgical patients and during the past year (1960) recorded 71,289 total clinic visits. Of the 9,353 patients admitted to the hospital, 9,299 or 99% came for surgery.

MCLEAN HOSPITAL

This hospital, situated in Belmont, is a division of the Massachusetts General Hospital for the care and treatment of patients with psychiatric disorders. McLean Hospital was the first hospital in New England and is the third oldest mental hospital in the United States. It has a capacity of 266 beds (with approved capacity of 271 beds) and has been a teaching hospital connected with the Harvard Medical School for many years. During the past fiscal year 326 patients were admitted to the hospital and 332 patients were discharged. It is equipped with laboratories for research in clinical physiology, neuropathology and neurochemistry, and clinical psychology. It maintains an experimental program in clinical application of social anthropology and sociology.

HARVARD UNIVERSITY

THE BOSTON CITY HOSPITAL

This hospital with all its divisions contains 1,547 beds, including 91 bassinets for newborn and 219 beds for infants and children. Over 300 are available to the teaching units of the Medical School. The Second and Fourth Medical Services, the Fifth Surgical Service, and the Neurological, Neurosurgical and Radiological Services are under the direction of Professors of the Harvard Medical School, and in addition there are other specialties open to our students. In the Out-Patient Department and Accident Floor 118,783 patients applied for diagnosis and treatment during the year 1958.

The Thorndike Memorial Laboratory, established in 1923 for medical research, includes a metabolism ward and is an integral part of the Harvard Medical Unit. It is an internationally known center of medical investigation in the treatment of blood disorders, infectious diseases and disorders of the liver, kidney, thyroid and heart. The Sears Surgical Laboratory, established in 1955 as part of the Harvard Surgical Unit, is associated with the Fifth Surgical Service under the direction of the Professor of Surgery who is Head of that Service. It provides a modern amphitheatre, conference rooms, animal quarters, library, and laboratories for surgical research. The Departments of Neurology and of Pathology also maintain active research laboratories. In addition there are well-equipped service laboratories for pathology, chemistry, metabolism, and immunology. Four amphitheatres and various conference rooms are used in student instruction. The hospital maintains an admirable general working library and two special libraries.

THE PETER BENT BRIGHAM HOSPITAL

This hospital since its dedication in 1913 has been closely associated with the Medical School. The hospital, equipped for teaching and research in physical diagnosis, medicine, surgery, radiol-

MEDICAL SCHOOL

ogy, and pathology is situated on grounds adjacent to the Medical School buildings. The Chiefs of Service are Professors of the Faculty of the Medical School. There are 275 beds, all of which are used for teaching purposes. During the past year, 7,000 patients were admitted. There are also an out-patient service and an emergency ward for ambulatory medical and surgical patients. The total number of visits to these facilities last year was 50,628. There are well-equipped medical, surgical, and pathological laboratories. Also located within the hospital are the offices of the Medical Center Health Clinic.

THE BETH ISRAEL HOSPITAL

This is a general hospital with a capacity of 410 beds (including 20 pediatric, 56 obstetrical, and 62 bassinets); of these beds 105 are constantly available for teaching. In addition to the ward beds many private beds are available for teaching. Incorporated in 1916, this institution has been located on Brookline Avenue around the corner from the Harvard Medical School since 1928 and has a close working relationship with it. The hospital is equipped for teaching and research in medicine, surgery, pathology, pediatrics, psychiatry and radiology, each under the direction of one or more full-time physicians who are associated with the Faculty of the Harvard Medical School. There are also electrocardiograph, electroencephalograph, chemistry and metabolism laboratories, animal research facilities, an extensive X-ray department with facilities for X-ray therapy, and a department of physical medicine and rehabilitation. During the past year, more than 35,000 patients received care through this Hospital as in-patients, out-patients, in emergency ward or through the Home Care Program. Out-patient visits totalled 58,134 and 13,552 visits were made to the Emergency Ward. There were 12,104 patients admitted to the Hospital and 2,598 deliveries.

HARVARD UNIVERSITY

THE CHILDREN'S HOSPITAL MEDICAL CENTER

This is an affiliation of nine voluntary institutions concerned with the care of children, with teaching, with research, and with child health. Included are the following:

The Children's Hospital

This hospital has been located on Longwood Avenue adjacent to the Medical School since 1914. It is a general hospital for the care of children from infancy through adolescence. Pediatric, surgical, neurosurgical, orthopedic, dental, radiologic, psychiatric, pathologic, and otolaryngologic services with their associated specialties are maintained. Special clinical facilities are provided for adolescents. There are 354 beds, with an average daily census in 1960 of 254 patients. During the year ending September 30, 1960 it rendered 93,024 days of care to 9,919 in-patient admissions. (These figures are inclusive of The Children's Hospital, Infants' Hospital, Sharon Sanatorium, and The House of the Good Samaritan.) In addition, there were 87,245 visits to 41 out-patient clinics. Full laboratory and diagnostic services are provided for the study of material from the house and out-patient services.

The Sharon Sanatorium

This organization sponsors the Sharon Cardiovascular Unit composed of 25 beds devoted to the care of non-rheumatic cardiovascular disorders including congenital heart disease. It is included in The Children's Hospital as described above.

The Infants' Hospital

Originally the Thomas Morgan Rotch, Jr. Memorial Hospital for Infants, this hospital operated in close conjunction with The Children's Hospital from 1923 to 1961, at which time there was a complete merger. There are 41 beds which are devoted to the care of infants in addition to a separate neonatal nursery accom-

MEDICAL SCHOOL

modating 12 infants under the age of one month, including pre-matures.

The House of the Good Samaritan and The Hospital and Convalescent Home for Children

The House of the Good Samaritan is situated at 25 Binney Street adjacent to the Medical School. There are 54 beds devoted to the care of long-term and convalescent patients and to the study of rheumatic fever and rheumatic heart disease.

The Hospital and Convalescent Home for Children was formerly situated in Wellesley Hills.

In February, 1959, the renovated Good Samaritan building was reoccupied and became a long-term and convalescent care facility of the Children's Hospital. The Hospital and Convalescent Home for Children was closed about the same time and its activities transferred to the Good Samaritan. This now provides 54 beds including 13 beds for respirator cases on patients requiring long-term orthopedic care. The study and treatment of rheumatic diseases continues. Out-patient clinics are held regularly as a part of this research program. The building also houses the Nursery School of the Cerebral Palsy Unit and the endocrine laboratories of The Children's Hospital.

The Children's Mission to Children

A social service organization, cooperating in home care and placement programs for children affected by illness and in need of such service.

The Children's Cancer Research Foundation

An independent institution working, with its staff and facilities integrated with those of The Children's Hospital Medical Center, provides, in conjunction with its research program, care and treatment to children with disseminated cancer.

HARVARD UNIVERSITY

The Judge Baker Guidance Center

A child psychiatry clinic whose treatment, training, and research programs are affiliated with those of the Department of Psychiatry of The Children's Hospital Medical Center. The in-patient service has 26 beds. This unit has constructed a building in close proximity to The Children's Hospital, expanding and integrating the program in psychiatry.

THE BOSTON LYING-IN HOSPITAL

This hospital occupies a building started in 1922 at 221 Longwood Avenue. Richardson House, the private wing, was completed in 1930. There are 175 beds, of which 54 are on the ward service and 121 are on the private service. During the past year there were 8,144 adult admissions to the hospital. A total of 6,196 births were recorded. Chemical, pathological, bacteriological and blood bank laboratories, and a well-equipped X-ray department are available for research. The Hospital which was founded in 1832 has been in continuous existence since 1873.

THE FREE HOSPITAL FOR WOMEN

This hospital is devoted exclusively to the care of women, with emphasis on the treatment of diseases peculiar to them. It has 92 beds, of which at least 32 are available for teaching. In 1959-1960, 3,081 patients were admitted, of whom 2,862 were operated on. In the out-patient department 12,541 patients were seen during this time, of whom 1,383 were new. In addition to standard laboratory facilities and a library, it has laboratories for research, oriented chiefly toward pathology, reproduction and neoplasia.

MASSACHUSETTS MENTAL HEALTH CENTER

This is a state institution for acute, curable, incipient, and doubtful cases of mental disease. The hospital was opened to patients in June, 1912 as a department of the Boston State Hospital. It

MEDICAL SCHOOL

became a separate institution in 1920. It has 200 beds, of which 14 are available for children. All of the beds are available for teaching and receive patients at the rate of about 1,000 a year. The hospital is equipped with psychological, clinical, biochemical, and research laboratories. The out-patient department which is made up of an adult and child division in 1960-61 received 3,725 new patients — total patient days during this period numbered about 28,291. In addition to the psychoses and neuroses, the clinical material includes cases of maladjustment, personality problems, behavior disorders of childhood and mental defect.

NEW ENGLAND DEACONESS HOSPITAL

A 375-bed general hospital which includes the Deaconess, Central, George F. Baker and the Palmer Memorial buildings for general beds; the Hospital Teaching Unit for ambulatory patients; the Norwich House for patients requiring intensive short-term psychiatric care, and the Cancer Research Institute. Sections of the hospital are especially equipped for diabetics; other sections are devoted to cancer, neurosurgery and thoracic surgery. It owns deep therapy equipment including a two million volt X-ray machine and radium. It maintains a Social Service department, out-patient tumor clinic, out-patient clinic for those receiving shock therapy and conducts numerous research projects.

VETERANS ADMINISTRATION HOSPITAL (WEST ROXBURY)

This is a 304-bed hospital for the care of general medical and surgical patients, incorporating a center for the care of patients with spinal cord injuries. All the beds are available for teaching; there were 2,583 admissions during the past year.

The hospital is administered by the Veterans Administration but is professionally closely associated with the Peter Bent Brigham Hospital (8 miles distant), with which it is affiliated for the training of residents. It has complete laboratory and X-ray facilities, a research laboratory, and its own library.

HARVARD UNIVERSITY

Other hospitals in the Greater Boston area in which some teaching activities are carried on include: Cambridge Tuberculosis Sanatorium (physical diagnosis); Long Island Hospital (physical diagnosis); Lemuel Shattuck Hospital; Metropolitan State Hospital; Middlesex County Sanatorium; Mt. Auburn Hospital (radiology); Peabody Home for Crippled Children; Pondville State Hospital and the Robert Breck Brigham Hospital.

HOSPITAL APPOINTMENTS

An active service is maintained to aid senior students in securing suitable hospital appointments as interns. Boston hospitals affiliated with the School make about one hundred such appointments each year. Internships for the Class of 1961 are listed in the back of the catalogue.

SCHOOL OF DENTAL MEDICINE

Details of The Harvard School of Dental Medicine program are available in the School's Official Register.

The Harvard School of Dental Medicine offers a four-year course leading to the degree of Doctor of Dental Medicine.

During the first two academic years the courses of instruction are nearly identical with those of the Medical School. The third and fourth years are under the direct supervision of the staff of the School of Dental Medicine. The recipient of the degree of D.M.D. from the School of Dental Medicine is well prepared to meet State Board requirements for license to practice dentistry. Graduates are also ready for the advanced study and experience recommended for any of the specialties of dentistry.

Access to the research laboratories of the School in the elective time during the third and fourth years permits unusual training for those having dental research in mind as a career.

The requirements for admission parallel those of the Medical School, except that the Dental Aptitude Test is required in place

MEDICAL SCHOOL

of the Medical College Admission Test. Qualified students and graduates of approved medical schools who wish to specialize in dentistry may be admitted to the School of Dental Medicine with advanced standing.

LIBRARIES

The Library of the Schools of Medicine and Public Health consists of:

Main Library (Administration Building, 2d floor)

Open: 9 a.m.—10 p.m. weekdays

9 a.m.— 5 p.m. Saturdays

2 p.m.— 6 p.m. Sundays

Anatomy Library (Building B, 3d floor)

Bowditch Library of Physiology and Biochemistry (Building C, 3d floor)

George Burgess Magrath Library of Legal Medicine (Building E, 3d floor)

Library of Dental Medicine (188 Longwood Avenue)

Lucien Howe Library of Ophthalmology (at the Massachusetts Eye & Ear Infirmary)

The card catalog in the Main Library shows the holdings of these libraries which contain 340,000 catalogued volumes and pamphlets and receive 1,750 periodicals currently.

The Main Library contains several collections of historical interest. The largest of these is the Warren Library, consisting of books and pamphlets on scientific and medical subjects collected by five generations of the medical men in one family. The Library was started by Dr. John Warren, first Professor of Anatomy and Surgery in the Medical School (1782), and was bequeathed to Harvard University by Dr. John Warren who taught Anatomy in the School from 1901 to 1928. The collection spans the years between 1476 (Caius Pliny, Secundus: *Historia Naturalis*) and 1928. Among the rarer volumes are Andreas Vesalius' *De Humani Corporis Fabrica* (1543), and William Harvey's *De Motu Cordis et Sanguinis in Animalibus* (1639).

HARVARD UNIVERSITY

All members of the University may borrow from the College Library at Cambridge. Messenger service is provided daily from the College Library and various other University Libraries.

The Boston Medical Library, located at No. 8 The Fenway, is the third largest medical library in the United States. It contains 230,000 cataloged volumes, 160,000 cataloged pamphlets, and 1,300 periodical titles currently received. Author cards for its books are filed in the Harvard Medical School catalog, and books and periodicals are available by messenger. Students wishing to go to the Boston Medical Library to read may do so weekdays 9 a.m. to 5 p.m., Saturdays 9 a.m. to 1 p.m. and evenings Monday and Thursday until 9 p.m.

The Boston Public Library issues cards to permanent *and* to temporary residents of Boston. Others may obtain cards upon payment of a small fee. Other Libraries of the Boston area, notably those of the Massachusetts Institute of Technology, add to the total book and periodical resources available to students.

The librarian is Ralph T. Esterquest, and Dale Friend is chairman of the Library Committee of the Faculty.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor *Emeritus* from 1847 to his death in 1856, son of John Warren, the first Hersey Professor of Anatomy and Surgery.

The Curator of the Museum is Dr. Don W. Fawcett, Hersey Professor of Anatomy and the Associate Curator, Dr. George E. Erikson, Assistant Professor of Anatomy.

The collection comprises several thousand specimens illustrating both normal and pathological anatomy. These include dissections, skeletons, viscera, and the Dwight Collection illustrating skeletal variations and cross sections of bones. There is a growing number of gross neuropathological specimens and an

MEDICAL SCHOOL

extensive series of total brain sections prepared under the direction of the former Curator, Dr. Paul I. Yakovlev. These are available for study by qualified graduate students upon application to the Department of Neuropathology.

A unique collection of primate skeletal material is located in the Museum, including over a thousand specimens representing all of the New World and many of the Old World genera. These are available to graduate students upon application to Dr. Erikson of the Department of Anatomy.

Also housed in the Museum are the records of the Longitudinal Studies of Child Health and Development conducted between 1929 and 1960 by Dr. Harold C. Stuart, Professor *Emeritus* of Maternal and Child Health at the Harvard School of Public Health. These records pertain to 134 children followed from birth to their eighteenth year and 175 other children followed from birth for shorter periods. The data include health histories, radiographs of skeletal development, body measurements, measurements of intelligence and observations on the family and home environment. Permission to use these records for research purposes may be obtained through the Department of Maternal and Child Health, Harvard School of Public Health.

REQUIREMENTS FOR ADMISSION

In general, the Faculty of Medicine consider for admission students in good standing in arts or in sciences or graduates of colleges listed as approved in the "Higher Education Directory," published by the Office of Education of the United States Department of Health, Education, and Welfare, or in any of the institutions included in "Approved Colleges of Arts and Sciences," published by the Council on Medical Education and Hospitals of the American Medical Association. Credentials from foreign universities, in most cases, must be supplemented by a year or more of work in an approved university in the United States. Candidates for admission to the first year class must present evidence satisfactory to the Committee on Admission, not simply

HARVARD UNIVERSITY

showing that they have passed the courses necessary to fulfill the requirements, but also that their college work and other credentials have been of such character as to give promise of work of high quality in the medical course.

The physician-of-the-future will function at the junction of the natural sciences, the social sciences, and the humanities. To fulfill his role, he should have had educational experience in all these areas of knowledge. This is best accomplished when secondary school, college, and medical school are viewed as a continuum.

The following are the minimal requirements to be met:

English: Basic skill in the English language, including the facility for clear expression in both the spoken and written medium, as evidenced by at least four years of study of English composition and literature, no less than one of these years being at the college level.

Foreign Language: Competence in a foreign language, either modern or classical, not merely to increase ability to read more extensively in the medical literature, but to increase understanding of language itself and the help this provides in developing the art of communication. Such an understanding presupposes the equivalent of at least two years of study at the college level. If an applicant has fulfilled the language requirement for a Bachelor's degree by obtaining a sufficiently high score on the College Board examination or by passing a college language placement test, he will be considered to have met the language requirement for admission to the Harvard Medical School. In such cases, however, an advanced course in the same foreign language is strongly recommended.

Mathematics: Mathematics, the language of science, is becoming an increasingly important tool for the successful study of medicine. Mathematics through one year of integral calculus, therefore, is strongly recommended.

MEDICAL SCHOOL

These basic skills in language and mathematics, which can be acquired in secondary school or in college, should be pursued in the former to the extent that an opportunity is available.

Chemistry: The equivalent of sixteen semester hours of chemistry in college, divided about equally between inorganic and organic, is required. It is important that this experience in chemistry include adequate time in the laboratory and familiarity with quantitative techniques, including volumetric analysis.

Biology: The student must have taken a general course in biology, which has emphasized the structure, function, natural history, and evolution of plants and animals. A satisfactory course should provide in college credits at least eight semester hours and adequate laboratory time.

Physics: College credit for eight semester hours must be offered.

Recommended Courses: Experience in physical chemistry, comparative anatomy, embryology, and genetics will be helpful during the first two years of medical school. Courses in psychology and the social sciences have value for increasing an understanding of human behavior, including the future physician's own, but such courses cannot be considered as a substitute for gaining familiarity with human activity through the study of history, literature, art, and religion. At least fifty percent of the undergraduate curriculum should be devoted to such areas.

These comments lead directly to a consideration of the choice of a college major. It should be the area that the student at this stage of life finds most interesting—the area about which he is most curious and that gives him the most satisfaction. Provided he is able to demonstrate competence in the natural sciences, the field of his college major will not influence consideration of him by the Admission Committee.

Honors courses, advanced courses, and independent work are

HARVARD UNIVERSITY

encouraged for the added educational depth they provide, but such courses should not be taken with the primary motive of increasing one's chances of admission to medical school.

An increasing number of students are being admitted to advanced standing in colleges on the basis of superior ability and educational attainments at secondary school. The program of advanced placement is looked upon with favor when the enrichment of the student's college experience is the goal, but it is not so regarded when the aim is merely to speed the student through college. Leaving college at the end of the third year without the benefit of the fourth or culminating year is not to be recommended unless a student's education has been delayed, and he is older than his classmates.

In the instances of applicants who have received college credit on the basis of work done in high school or preparatory school for any of the required courses listed above, such credit will be accepted by the Medical School as fulfilling the requirements for the particular course or courses involved, provided the Medical School receives from the Dean's Office of the college concerned a written statement setting forth precisely what credit has been given.

No attempt should be made to anticipate the work actually given in medical school — to do so is a double mistake: it eliminates the chance to explore a field that will not be touched upon later, and it may give the student a false sense of security in a subject with which he has some familiarity, leading him to neglect it in medical school under the competitive pressure of other courses. The results can be disastrous.

The selection of students is based on a total appraisal of the personal and intellectual suitability of the candidate for medicine. The student planning to embark upon a career in medicine would be well advised, therefore, to strive — not for grades — not for a vocational training — but for a sound liberal education. He should give heed to "the development of . . . intellectual, moral, and aesthetic powers."

MEDICAL SCHOOL

The Medical College Admission Test of the Association of American Medical Colleges is required of all applicants for admission, and is given in May and October of each year. Applicants are urged, whenever possible, to take this test in May of the year preceding the expected date of matriculation.

This test will be administered by the Psychological Corporation. Information regarding the test may be obtained by writing to Medical College Admission Test, The Psychological Corporation, 304 E. 45th Street, New York 17, New York.

Interview: When the Committee on Admission deems an interview to be helpful, the applicant will be so informed.

One class only is admitted each year, beginning late in September. Application blanks are ready for distribution after May 1 of the year preceding expected matriculation. These should be returned to the Admission Office, Harvard Medical School, 25 Shattuck Street, Boston 15, Massachusetts, as promptly as possible, but they will not be acted on prior to the following October 1. No applications will be accepted after the next December 1. Places in the class are usually filled by January 15. The Committee on Admission meet at regular intervals from October through February, considering applications as they are completed, but letters of acceptance are mailed only on November 15, December 15 and January 15. Applications will not be considered from candidates who have been refused admission on two prior occasions.

Since a complete catalogue is available in most college libraries, it is not usually sent to individuals.

ADMISSION TO ADVANCED STANDING IN THE HARVARD MEDICAL SCHOOL

Due to the increased number of places available during the third and fourth clinical years, up to 35 students may be accepted in transfer from other medical schools. Graduates of two year medical schools and students in four year medical schools who

HARVARD UNIVERSITY

have compelling reasons for transfer are considered. Vacancies which occur occasionally in the second year class may also be filled by transferring students.

Only students of high scholastic standing will be considered. They must be recommended by the Dean of the school from which they come and must furnish a certificate of successful completion of medical studies at least equal to that achieved by the class to which they seek admission. As a rule, full credit for work done elsewhere will be allowed. All the requirements for the first year class (including the Medical College Admission Test). must have been fulfilled by applicants for advanced standing.

Applications may be obtained at the Admission Office after September 1, but will not be acted upon before February 1 of the year of expected transfer.

ADMISSION TO ADVANCED STANDING IN THE HARVARD SCHOOL OF DENTAL MEDICINE

The third year class may be increased by a small number of transfer students who have completed the equivalent of the first two years at the Harvard School of Dental Medicine. Vacancies in the second year class may also be filled by transferring students. No students may transfer to the fourth year class without a special vote of the faculty in each instance.

Only students of high scholastic standing will be considered. They must be recommended as promising candidates by the Dean of the school from which they come. Full credit for work done elsewhere will be allowed as a rule, but in certain cases additional work may be required. Ordinarily such requirements can be completed during the summer holiday preceding transfer. All the requirements for the first year class must have been fulfilled by applicants for advanced standing.

INFORMATION FOR SERVICEMEN

The Harvard Medical School welcomes inquiries regarding future application from men who are now on active duty with

MEDICAL SCHOOL

the armed forces. The Committee on Admission cannot act on applications from men still on active duty and not released from service. The applications of men on terminal leave or whose date of discharge is definitely known may be considered by the Committee. The qualifications for admission remain essentially the same for veterans as for civilian applicants. Before the acceptance of a veteran can be final, the applicant will need to submit photostatic copies of discharge papers or similar evidence of honorable release. Where available the applicant should file also a copy of his "Report of Separation" on which is listed in detail his service record and training. If the Committee does not act favorably on an application, certifications furnished by the applicant may be returned, at his request. It is the responsibility of the applicant to take the necessary steps toward obtaining the governmental benefits for which servicemen are eligible. On request, the section on Veterans Affairs of the Comptroller's Office at Harvard will furnish a statement of the necessary procedures to receive such benefits required by the Veterans Administration. The University has established this office to form a central point for answering inquiries and advising veterans. For matters relating to veterans' affairs and not connected directly with the Medical School, the applicant should feel free to write to the Comptroller's Office, Veterans Affairs, Lehman Hall, Harvard University, Cambridge 38, Massachusetts.

APPLICATIONS FROM FOREIGN STUDENTS

A candidate from a foreign university may file application for admission, but if he has attended a university or medical school which has not received approval by the Approving Authority of the Commonwealth of Massachusetts, he must receive specific approval from the Authority before he can be admitted. In general, it is the policy of the Committee on Admission to require that foreign students spend at least one year, and preferably two, studying at an undergraduate college in this country before applying for admission to the Harvard Medical

HARVARD UNIVERSITY

School. This policy has been established in order both that the applicant may become familiar with the language, customs, and methods of teaching in the United States, and that the Committee may obtain a better evaluation of his qualifications and preparation for medicine. Exception to this policy may be made in the case of qualified applicants from schools in the British Isles.

Students seeking transfer to the second year class from foreign medical schools may be required to take the examinations in the first year subjects at the regular time they are given at the Harvard Medical School in January and June. Students applying for transfer to the third year at the Harvard Medical School will be required to take Part I of the examinations given by the National Board of Medical Examiners and to achieve scores satisfactory to the Committee on Admission.

FOREIGN STUDENTS

All students who are not citizens of the United States will be referred before registration to the Harvard International Students Office, Holyoke Center, 75 Mt. Auburn St., Cambridge 38, where they *must* present a statement of admission, show their passports, and fill out a Student Registration form. They will then receive a card for presentation at registration, showing they have been cleared by the International Students' Office.

This office serves as the official liaison agency between the University and the United States Department of State and Immigration and Naturalization Service. It maintains a registry of all non-U.S. citizens in the various Schools or Departments of the University, and it furnishes these members of the University community with information, not only on Immigration regulations, but on the facilities available to them through other Harvard offices, and from recognized outside organizations interested in the welfare, housing and hospitality of those unfamiliar with this country.

MEDICAL SCHOOL

SPECIAL STUDENTS

Individuals wishing to take courses or to engage in special study under the Faculty of Medicine, who are not candidates for the degree of Doctor of Medicine or regularly enrolled as students under another Faculty of the University, may apply for admission as Special Students. Candidates should be mature individuals with serious and compelling reasons for wishing to pursue special programs of study at the Harvard Medical School. Application for admission to the status of Special Student should be submitted to the Committee on Admission of the Faculty of Medicine. Each of these students will be under the charge of the Dean and a member of the Faculty designated by the Dean to serve as his special adviser. Admission to Special Student status is ordinarily for a maximum of one year. Only with the approval of the student's adviser, the departments concerned, and the Dean may this period be extended.

Tuition Fee: Varies according to the courses taken and is based on a proportion of the annual fee for instruction.

Special Auditors: Either Special Students, holders of a doctoral degree, or men who do not have the doctor's degree but have some equivalent scholarly or professional standing, may with the approval of the department head, apply to the Committee on Admission to attend courses as Special Auditors. They may not receive credit or take examinations in courses. Fee: \$25 per course.

Special Students at the Medical School wishing to take courses under the Faculty of Arts and Sciences must register with the Dean of Special Students, Holyoke Center, 75 Mt. Auburn St., Cambridge 38, Massachusetts.

HARVARD UNIVERSITY

GENERAL REGULATIONS

In order that the time of study shall count as a full year, students of all upper classes must register on the first day of the session.

A fee of \$10 is charged for late registration.

For special and approved purposes fourth year students may be allowed to take a portion of their work elsewhere than at the Harvard Medical School, provided the application be approved by the Dean in consultation with the Administrative Board and the head of the department concerned, and provided the student passes an examination on this work after its completion, conducted by a member of the Faculty of the Harvard Medical School.

EXAMINATIONS AND PROMOTION

Promotion from one class to another is contingent upon the satisfactory completion of the required work of each year. In each course, when indicated, students will be informed by their instructors as early as possible when the progress of their work is unsatisfactory.

Final grades in each course will be based upon such examinations or other tests as are determined by each department. Grading is on the scale of A, B, C, D, and E (denoting failure).

Grades are averaged on the basis that A = 1, B = 2, C = 3, D = 5 and E = 8. In calculating this average, time devoted to a course is taken into account.

Promotion Boards

Promotion Boards have been appointed for the first, second and third years to review the work of each student at the end of the year or, at their option, at other times. The membership of these boards consists of one representative from each department whose grading, as noted above, affects the student's grade average and one member from the Committee on Examinations

MEDICAL SCHOOL

and not as voting members, the Dean or Assistant Dean, *ex-officiis*, and on the Promotion Boards of the first and second years, the Dean of the School of Dental Medicine, *ex-officio*.

It is the duty of the Promotion Boards to promote those qualified, to notify formally students whose work in any course is unsatisfactory—in certain cases requiring that such students repeat the year's work—and to recommend that unpromising students withdraw from the School.

Opportunity will be given to students to appeal the decision of a Promotion Board either at a special meeting or at the next regular meeting of the Board. Appeals must be sent to the Chairman of the Promotion Board, Harvard Medical School and, to be valid, be received by him within two weeks after the issuance of a Promotion Board's notice of formal action.

General Examination

A committee will give a General Examination to each candidate for the degree of M.D. It will recommend to the Faculty those who pass and are otherwise qualified for the degree and for honors. The conditions under which a student shall take a General Examination and the character and content of the examination will be determined by the Committee subject only to rules of the Faculty.

A student becomes eligible to take a General Examination on successfully completing seven-eighths of his fourth year work. He may not anticipate the General Examination ahead of his class.

A student who fails three General Examinations is debarred from further attempts.

Rules Governing Promotion

1. A student with a grade averaging, for one year, from D (5) to E (8) will ordinarily be required to withdraw from the School.
2. A student whose grade for one year averages from 4 to 5 will be warned that his work is unsatisfactory. At the Promotion Board's discretion such a student may be required to repeat the year's work, or to withdraw from the School.

HARVARD UNIVERSITY

3. A student who is set back a year must repeat at least two assigned subjects and then he will not be promoted unless he obtains a grade of C or better in both of these subjects.

4. A student who is warned by a Promotion Board that his work is unsatisfactory and yet is permitted to advance with his class must attain for the ensuing year a grade average which is significantly better than in his previous year, failing which he must repeat the year's work, or, at the Board's discretion, he may be required to withdraw from the School.

5. A student failing in any course and yet permitted to advance with his class may not be promoted a second time nor will he be allowed to take the General Examination until that failure is removed.

6. A student failing any course will have an opportunity for re-examination only at a time set by the Promotion Board or with a succeeding class or section.

LEAVES OF ABSENCE

The Faculty of Medicine believe that certain students may profitably be granted a leave-of-absence from the School for specified periods of time in order to pursue at other institutions studies and research activities related to medicine. A leave-of-absence for this purpose should be requested from the Dean's Office. It will be granted at the discretion of the Dean.

WITHDRAWAL FROM THE SCHOOL

A student may withdraw from the School voluntarily upon application to the Dean's Office. A student may be required to withdraw from the School at any time if in the opinion of his instructors he is not competent to pursue his assigned course of study or if the Faculty of Medicine determine that he is for any reason unfit to continue as a student in the School. In addition, any student who is absent without leave from scheduled courses for more than a total of 30 days during the academic year will be required to withdraw from the School.

MEDICAL SCHOOL

Application for reinstatement by any student who has withdrawn voluntarily or who has been required to withdraw from the School, must be received in writing by the Committee on Admission of Students at least four months prior to the requested date of readmission. Reinstatement will be made only upon the recommendation of the Committee on Admission.

DEGREES

DEGREE OF DOCTOR OF MEDICINE

Every candidate for the degree of *Doctor of Medicine* at this University must be at least twenty-one years of age, and of good moral character. He must have fulfilled all the requirements for admission to this Medical School; give evidence of having studied in a recognized medical school at least four full years, of which one year must be spent in the regular fourth year course of this School; have passed all the required examinations; have dissected the three parts of the body to the satisfaction of the demonstrator; and furnish evidence of having engaged in the practical exercises in Medicine, Surgery and Obstetrics.

The degree of Doctor of Medicine *cum laude*, *magna cum laude*, or *summa cum laude* may be given to students of highest rating in the class, on recommendation of the Committee on Examinations and the Faculty.

The degree of Doctor of Medicine *cum laude*, *magna cum laude*, or *summa cum laude* for a thesis in a special field may be awarded to candidates for the degree of Doctor of Medicine on recommendation of the Committee on Examinations and the Faculty. The work for this may have been carried out under the Tutorial System or by independent arrangement with any member of the Staff.

The degree is awarded for original and meritorious investigation in a single subject or group of subjects and for evidence of ability, scholarship and persistent interest and industry. Candidates wishing to be considered for such honors in a special field

HARVARD UNIVERSITY

must apply to the Dean's Office not later than March 1 of the year of graduation and must submit two typewritten copies of an original thesis prepared in form usual for publication. The written approval of the head of the department in which the work was completed must be attached.

The thesis should include an introduction with references to relevant literature; a brief statement of the purpose of the study; a description of the materials and methods employed; an account of the original observations included; a discussion of the results; a summary; and a list of the references used.

No candidate is eligible to graduate with honors for a thesis in a special field unless he has done creditable work in his regular curricular studies and has passed the General Examinations. In addition, any candidate whose qualifications are acceptable for honors in a special field must pass an oral examination before the Subcommittee on Honors in a Special Field and invited special examiners in which he will be examined not only on the subject of his thesis but on the general field of which it is a part.

Every candidate for the degree of M.D. must make application for it in writing on blanks furnished at the Dean's Office, on or before April 1.

DEGREE OF DOCTOR OF DENTAL MEDICINE

Every candidate for the degree of *Doctor of Dental Medicine* at Harvard University must be at least twenty-one years of age and of good moral character. He must have fulfilled all the requirements for admission to this school; give evidence of having studied at least two full years in basic health sciences comparable to those offered in the first two years of this school and two years in a recognized dental school, of which one year must be spent in the regular fourth year course of the Harvard School of Dental Medicine. He must have passed all the required examinations and have satisfactorily completed the minimum requirements for work in the various laboratories and clinics.

The degree of Doctor of Dental Medicine *cum laude, magna*

MEDICAL SCHOOL

cum laude, or *summa cum laude* may be given to students of highest general rating in the class, on recommendation of the Committee on Examinations. The degree is also awarded, where appropriate, with honors for a thesis in a special field.

Application for the D.M.D. degree, on a form provided by the Dean's Office, must be filed at that office prior to April 1 in order for the student's name to be placed on the list of degree candidates at Commencement.

HIGHER DEGREES IN THE MEDICAL SCIENCES

The degrees Doctor of Philosophy, Master of Arts, and Doctor of Medical Sciences have been established for advanced work in some special field in the medical sciences. The first two degrees are administered by the Faculty of Arts and Sciences, through the Division of Medical Sciences, which consists of faculty members of the preclinical departments of the Medical School. The third is administered by the Faculty of Medicine. All candidates for these degrees must hold a degree in Arts or in Sciences from an approved college.

Candidates for the Doctor of Philosophy and Master of Arts degrees are registered in the Graduate School of Arts and Sciences for study in the Division of Medical Sciences. Students interested in graduate study in the Division should see the General Announcement of the Graduate School of Arts and Sciences and the pamphlet entitled *Higher Degrees in Medical Sciences*. These can be obtained by men from the Harvard Graduate School, Holyoke Center, 75 Mt. Auburn St., Cambridge 38, Massachusetts; or by women from the Radcliffe Graduate School, Radcliffe College, Cambridge 38, Massachusetts.

Inquiries should be addressed to the Chairman of the Division of Medical Sciences, 25 Shattuck Street, Boston 15, Massachusetts.

Doctor of Philosophy and Master of Arts

The major aim of the Division of Medical Sciences is to prepare graduate students for careers of research and teaching in the

HARVARD UNIVERSITY

basic medical sciences. Since the graduate student may elect a program of study suited to his individual requirements, he may concentrate on his field of special interest early in his training, without the obligation of spending two or three additional years in clinical studies which are required for the degree of Doctor of Medicine.

Candidates for admission should have a thorough grounding in the biological and physical sciences. This will usually be more than the minimum for admission to medical school. Advanced courses in biology, chemistry, and physics are ordinarily regarded as preferable to undergraduate courses in bacteriology, biochemistry, histology, etc. A reading knowledge of German and one other modern language is desirable but not required for admission. The candidate will be required, however, to pass an examination in German and one other foreign language before graduation.

The graduate student in the Division devotes a major portion of his time to original experimental investigation which he undertakes in conjunction with formal courses designed as a preparation for his special field. During the period when he is taking formal courses, he may choose the type of problem which interests him most among the wide range of research activities of members of the Division.

The Division offers to entering students a new type of course, Medical Sciences 201, which is designed to introduce the student to the literature, experimental methods and fundamental principles associated with each of the preclinical sciences — anatomy, bacteriology, biochemistry, pathology, pharmacology and physiology. The establishment of this course represents a new departure in the training of candidates for the Ph.D. degree within the Division. Studies center around the functional and morphological characteristics of cells, organs, and organ systems, and each topic selected for study is approached from the various points of view represented by the different sciences. This course is given in a laboratory specially designed to permit the integrated study required by this approach. This course will ordinarily constitute the entire program of study for first

MEDICAL SCHOOL

year graduate students in the Division. After completion of the course, the student may enter any one of the special fields to carry out his or her more advanced studies and thesis work. These advanced studies may include courses in the Departments of Biology, Chemistry, and Physics in Harvard College.

The minimum requirement for the degree of Doctor of Philosophy consists of not less than two years — at least one and a half of which must be in residence at Harvard or Radcliffe — devoted to advanced studies approved as suitable preparation for the degree by the proper department. Ordinarily three or more years are required for the completion of formal courses and preparation of a thesis. In estimating the amount of a candidate's study for the degree, the advanced work done in other graduate departments at Harvard or of other universities will be considered.

It is expected that the preparation of a thesis will require full time for usually not less than one and a half years. It must show original treatment of a fitting subject, give evidence of independent research, and be clearly, logically, and carefully written in good English. Following acceptance of his thesis, the candidate is given an oral Final Examination on the subject of his thesis and its relation to his special field and collateral subjects.

The minimum requirement for the degree of Master of Arts consists of a full year of residence and study. At least one quarter of the work must be more advanced than the regular introductory courses offered by the various departments, and should consist of research or individual preparation for research. In addition, each student must pass an examination in French or German. In some departments a thesis is required for the degree.

Doctor of Medical Sciences

Candidates for this degree must matriculate as medical students and complete with an honor grade the regular elementary courses offered by this School, together with such other subjects as may be recommended by the Faculty. Ordinarily this preparatory training will be equivalent to the first two years of the course of

HARVARD UNIVERSITY

study leading to the degree of M.D. In addition, all candidates are required to have a reading knowledge of French and German. In estimating the amount of a candidate's study for the degree, study completed in other approved medical schools will be considered.

Following the completion of this preliminary training, the student shall devote himself for not less than two years to the intensive study of one of the fundamental medical sciences and to the preparation of a thesis. The thesis must show an original treatment of a fitting subject and give evidence of independent research.

There shall be two examinations for every candidate for this degree: a general examination, before entering upon the work of the last two years, covering the elementary medical sciences; and a final examination, upon acceptance of the thesis, covering the particular medical science chosen as a special field.

STUDENT EMPLOYMENT

The Dean's Office makes every effort to assist students in obtaining part-time work during the college year when a student's standing is such that it is felt he can carry outside work, and full-time work during the summer vacation. The service is furnished without cost either to the student or to the employer.

Only a limited amount of outside work can be done without being a tax on a student's health and scholarship, and the student is urged, when it is possible, to devote himself to a regular program of study and recreation, giving as little time to outside work as is feasible with his plan for financing his medical education. A number of positions offering room and board in return for laboratory or minor clinical services in hospitals are available to second, third, and fourth-year students. Fewer opportunities are open to first-year students.

MEDICAL SCHOOL

MICROSCOPES

The School requires that each student secure a standard student microscope, preferably less than twenty years old, with a minimum of two oculars and three objectives including an oil immersion lens. A mechanical stage is not essential. The minimum requirements are as follows:

- 2 oculars 5X and 10X
- 1 oil immersion objective
- 1 16mm. objective
- 1 4mm. objective
- 1 complete substage —Abbe condenser and Iris diaphragm

In addition, the following are recommended by the Department of Pathology:

- 1 scanning objective 2-3X
- 1 quadruple nosepiece

Under the auspices of the Student Faculty Committee, arrangements have been made for the *quantity* purchase, at a substantial discount, of the standard American, certain German and Japanese microscopes. The standard American and German monocular microscopes currently retail at about \$350, binoculars at about \$550.

Further information about the *quantity purchase plan* will be sent to each student.

The Medical School has about fifty microscopes available for rental each year to first year students unable to provide their own. The rental charge is \$10 a half year. A rental microscope will be reserved for each student who applies for one by *April 15*.

FEES AND EXPENSES

An estimate of total yearly expenses shows that the average cost of the school year is approximately \$3,100 for each academic year. This estimate includes tuition, medical health fee, board and room, books, laundry and incidentals.

The fees are: — For matriculation, \$5; for medical health fee,

HARVARD UNIVERSITY

\$74.00 for each year; for instruction (including laboratory charges except microscope rental, breakage, damage and loss of apparatus), \$1,500 for each year.

Term-bills for the year 1961-62 are issued and payable as follows:

<i>Issued</i>	<i>Payable</i>	<i>Basic Charges</i>
At Registration	Presentation	$\left\{ \begin{array}{l} \frac{1}{4} \text{ Tuition for the year} \\ \frac{1}{2} \text{ Medical Health Fee} \end{array} \right.$
Nov. 20	Dec. 10	$\left\{ \begin{array}{l} \frac{1}{4} \text{ Tuition for the year} \\ \text{Board through Oct. 31} \\ \frac{1}{4} \text{ Room Rent for the year} \\ \text{Coupon Books through Oct. 31} \\ \text{Miscellaneous Charges} \end{array} \right.$
Jan. 20	Feb. 10	$\left\{ \begin{array}{l} \frac{1}{4} \text{ Tuition for the year} \\ \frac{1}{2} \text{ Medical Health Fee} \\ \text{Board through Dec. 31} \\ \frac{1}{4} \text{ Room Rent for the year} \\ \text{Coupon Books through Dec. 31} \\ \text{Miscellaneous Charges} \end{array} \right.$
Apr. 20	May 10	$\left\{ \begin{array}{l} \frac{1}{4} \text{ Tuition for the year} \\ \text{Board through March 31} \\ \frac{1}{4} \text{ Room Rent for the year} \\ \text{Coupon Books through March 31} \\ \text{Miscellaneous Charges} \end{array} \right.$
June 8 *	June 15	$\left\{ \begin{array}{l} \text{Board to the end of year} \\ \frac{1}{4} \text{ Room Rent for the year} \\ \text{Coupon Books to the end of the year} \\ \text{Miscellaneous Charges} \end{array} \right.$
June 30	July 15	$\left\{ \begin{array}{l} \text{Board to the end of year} \\ \frac{1}{4} \text{ Room Rent for the year} \\ \text{Coupon Books to the end of the year} \\ \text{Miscellaneous Charges} \end{array} \right.$

* Applies only to candidates for degrees.

MEDICAL SCHOOL

A deposit of \$50 is required of every new student who accepts a place in the Medical School; this sum to be applied on his first term bill or to be forfeited if the student does not register.

The term bills are sent to the student at his college address unless the Bursar is requested in writing to send them elsewhere.

A fee of \$10 is automatically added to all bills which are unpaid by the due date.

Any student whose indebtedness to the University remains unpaid on the date fixed for payment is deprived of the privileges of the University until he is reinstated. Reinstatement is obtained only by consent of the Dean of the Department in which the student is enrolled, after payment of all indebtedness.

As a further condition for reinstatement a student who is delinquent in his financial obligations to the University is required to furnish a bond in the form prescribed by the University in the amount of \$1,000 as security for the payment of his future financial obligations to the University.

Students who are candidates for degrees in the middle of the academic year must pay all dues to the University at least one day before the day upon which the degrees are to be voted.

All indebtedness to the University must be paid by all candidates for degrees at least one day before Commencement.

When a student's connection with the University is severed, all charges against him must be paid at once.

Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

DORMITORY

Vanderbilt Halls, the Medical School dormitories, have accommodations for 305 male and 20 female students. The majority of the rooms are designed for one occupant. Many of the rooms communicate directly with the adjacent room, and there are also a number of suites for two or more persons. The price of rooms ranges from \$240 to \$495 per person for the academic year. Appli-

HARVARD UNIVERSITY

cation forms for rooms in Vanderbilt Halls will be sent to all new students approximately four months before registration day. The date on which they must be returned in order to be included in the drawing will be announced at that time. Students are permitted to reengage their rooms for the following year by signing lease cards at the Dean's Office. The dormitory has squash courts, a tennis court, and a gymnasium which are open to members of the teaching staff and students of the Medical School. There is a parking lot for a limited number of automobiles behind the hall which is owned by the School. No charge is made for this facility and the School assumes no responsibility for loss or damage to automobiles or other property left in the lot. First year students are urged not to bring cars.

DINING HALL

The dormitory contains a large dining hall which is available for all members of the medical area. *First year students and second year students in the first term* living in Vanderbilt Halls will be required to pay full board, \$600 for 21 meals a week. For students in the second term of the second year, compulsory meal contracts may be amended to provide for absence from lunch during the three clinic days of each week. A proportionate decrease in the full board rate will be made for the period involved. Students desiring the amended contract should apply to the Dining Hall checker. Graduate students and others living in the Halls will also be required to sign on for the 21 meals a week for their first two years of residence.

STUDENT HEALTH SERVICE

The Medical Area Health Service at the Peter Bent Brigham Hospital, 721 Huntington Avenue, supplies medical care to the students. The office is open daily except Saturday afternoons, Sundays, and holidays from 8:30 a.m. to 5:00 p.m.; office hours for the physicians are 8:30 to 10:00 a.m. and 1:00 to 2:00 p.m. However, one of the staff is available during the day by ap-

MEDICAL SCHOOL

pointment and for emergencies. For emergency care at night and on holidays, the Emergency Service of the Peter Bent Brigham Hospital is open at all times and one of the staff of the Health Service is available by telephone. A complete medical examination of each new student is required at the beginning of the school year. This is conducted by appointment shortly after school opens.

Medical students requiring hospitalization will ordinarily be hospitalized at the Peter Bent Brigham Hospital. Upon registration, each student receives a booklet which describes the medical services available from the Medical Area Health Service. Hospital insurance is available through the plan for wives and children of married students.

Evidence of having been satisfactorily vaccinated is required for entrance to Harvard University and a form for certification which must be filled out is sent to each student who is accepted for admission. Results of a chest film made within six months prior to registration must be reported.

Any illness necessitating absence from classes should be reported to the Health Service.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

The Fellowship Funds of the Harvard Medical School are, except where otherwise noted, administered by a Standing Committee of the Faculty. Applications for support from these funds should be sent to the Dean's Office.

EDWARD HICKLING BRADFORD (1918). Anonymous. To be used for medical research or instruction separately or in connection with any other foundation, in such manner as may be prescribed.

JOHN WHITE BROWNE (1918). Mrs. Francis B. Greene. For a young man of unusual promise to pursue research investigation for one year at the Harvard Medical School or elsewhere.

HARVARD UNIVERSITY

BULLARD (1891). William Story Bullard, in memory of three physicians "distinguished for their honorable personal character and their professional services in this community":

GEORGE CHEYNE SHATTUCK MEMORIAL

JOHN WARE MEMORIAL

CHARLES ELIOT WARE MEMORIAL

Any one or all of these fellowships may be paid to any student or member of the medical profession appointed to make such original investigations in Medical Science as will be most useful to the profession and to the community. The results of these investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee.

Holders of the fellowships must do throughout the academic year the equivalent of at least ten hours' work a week and make a report thereon.

ARTHUR TRACY CABOT (1913). Dr. and Mrs. Frederick Cheever Shattuck. In memory of Arthur Tracy Cabot, A.B. 1872, M.D. 1876. For students of surgery. Ordinarily the incumbent may not engage in active practice, but is to devote himself to the advancement of surgery in the United States or elsewhere. Nomination to this fellowship is by preference to be made by the Moseley Professor of Surgery.

JAMES JACKSON CABOT (1906). Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot. Income to be used to "aid and encourage practical work in scientific medicine."

WALTER BRADFORD CANNON (1945). Mr. Joseph F. and Mrs. Clara Ford. A fellowship in Physiology.

HENRY A. AND CAMILLUS CHRISTIAN (1956). Henry A. Christian. To be appointed by the Hersey Professor of the Theory and Practice of Physic. The fellowship shall be held preferably by the same individual for a period of five years. The greater part

MEDICAL SCHOOL

of his time shall be devoted to medical investigation, preferably in the field of clinical medicine.

HAROLD C. ERNST MEMORIAL FUND (1938). Mrs. Ellen L. Ernst. A scholarship or fellowship in the Department of Bacteriology.

CHARLES FOLLEN FOLSOM (1908). Founded by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870. A Teaching Fellowship in Hygiene or in Mental and Nervous Diseases. For the present assigned to the Department of Neuropathology-Neurology.

LOUIS W. GILBERT (1943). S. Louise Gilbert. Income to be used for the study of chronic diseases.

SAMUEL JORDAN GRAHAM (1961). E. Norma P. Graham. Fellowship in surgery.

CHARLES DUSTIN HUNKING, M.D. (1948). Sarah S. H. Cheney, in memory of her brother, Charles Dustin Hunking, M.D., a member of the Class of 1871 of Harvard University and of the Class of 1876 of Harvard Medical School. To enable a graduate of Harvard Medical School, who is also a native of Haverhill, Mass., to do medical research.

LOUIS E. KIRSTEIN (1937). Friends of Louis E. Kirstein. For the promotion of scientific medical education.

JOHN R. KISSINGER (1911). Harold C. Ernst. For a fellowship or salary of an individual engaged in the investigation of the causation of infectious diseases, preferably in the direction of tropical medicine. Recommendation to this fellowship is made by the Professor of Bacteriology in the Medical School.

WILLIAM O. MOSELEY, JR., TRAVELLING FELLOWSHIPS (1912). Mrs. William O. Moseley. For students who have attended the School for three or four years or, upon recommendation of the Administrative Board in each such case, men who have been two years as undergraduates in the School and who have subsequently

HARVARD UNIVERSITY

for at least a year done, under members of the staff of this School, advanced work of such character and quality as to lead the Administrative Board to believe that they will be of unusual value in their profession. To enable them to continue the study of medicine in Europe. Either two or three fellowships will be awarded.

FRANCIS WELD PEABODY MEMORIAL (1929). To be awarded on the recommendation of the Dean and full professors of Medicine in charge of the clinics of the Boston City Hospital, the Massachusetts General Hospital, and the Peter Bent Brigham Hospital, to properly qualified graduates of medical schools to enable them to devote further time to intensive clinical and laboratory studies.

JEFFREY RICHARDSON (1933). William Lambert Richardson, A.B. 1864, M.D. 1867. To be awarded each year to some deserving student, upon his graduation from the Harvard Medical School, who desires to continue his studies either here or abroad.

HENRY P. WALCOTT (1910). Dr. Frederick Cheever Shattuck. For a Fellow in Clinical Medicine appointed on nomination by the Jackson Professor of Clinical Medicine. The recipient shall not engage in private practice but must devote his time to teaching and clinical research.

WHITMAN (1933). Mrs. Bernard C. Whitman, in memory of her husband Bernard C. Whitman, A.B. 1846, and of her son Crosby C. Whitman, A.B. 1886. Available for a graduate of Harvard Medical School pursuing the study of medicine or surgery at the École de Médecine de Paris.

WILLIAM HUNTER WORKMAN (1925). William Hunter Workman, M.D. 1873. To enable one or more graduates of the Harvard Medical School to pursue postgraduate studies in medicine in this country or abroad. In exceptional cases, fourth year students will be eligible.

MEDICAL SCHOOL

SCHOLARSHIPS

HARVARD MEDICAL SCHOOL NATIONAL SCHOLARSHIPS

In order to make it possible for young men of outstanding ability and promise to come to the Harvard Medical School, two or three Harvard Medical School National Scholarships will be offered to incoming members of the first year class. These scholarships will carry a stipend sufficiently large, if necessary, to meet all the student's essential expenses. Successful applicants who maintain a high honor record at the Medical School will continue to hold these scholarships throughout the Medical School course.

The offer of these scholarships is made possible by gifts from Mr. Edward S. Harkness, Dr. Daniel F. Jones, and Dr. Franklin S. Newell. The donors expressed the hope that through these scholarships superior men who could otherwise not receive a medical education would be enabled to attend the Harvard Medical School. They also expressed the hope that some of these men might wish to return to their own communities to carry on the practice of medicine.

Direct application for these scholarships cannot be made since all accepted first year students are considered as candidates, the awards being made without reference to financial circumstances. The stipend will vary depending on the resources of the recipient.

GENERAL SCHOLARSHIPS

The following scholarships are open to students who have been admitted to the School at the time of application. Approximately \$86,000 is available annually from the general scholarship funds.

The Cheever, Gerry, Greene, and Haven Scholarships are awarded only to students of the first year class. The Hayden and Webster Scholarships may be so awarded. All the other scholarships are available to members of all classes.

Scholarships and gratuities are awarded to such men among those applying for and needing assistance as give evidence of having done the best work in this School.

HARVARD UNIVERSITY

Information with regard to all forms of pecuniary aid may be obtained from the Dean's Office. Students requiring aid should visit the Dean's Office as soon as possible after matriculation to discuss their financial needs.

AESCULAPIAN CLUB (1938). To be used for loans or scholarships.

VIVIAN B. ALLEN (1954). To provide scholarship aid for men who are unable to pay their own way for medical training.

EDWARD DANA BARBOUR FUND (1928). For promoting medical education in China, preference to students coming from Shanghai or its environs.

EDWARD M. BARRINGER FUND (1881). Edward M. Barringer. For the maintenance of two scholarships for students in the Harvard Medical School. Awarded to deserving students, preference being given to those of the fourth year class.

EDWARD M. BARRINGER No. 1

EDWARD M. BARRINGER No. 2

GORDON BARTLETT (1919). Mr. and Mrs. Donald Gordon, in memory of their nephew, Gordon Bartlett, a student at Dartmouth College who died of wounds at St. Mihiel while serving in the Seventeenth Field Artillery. Preference is given to graduates of Dartmouth College. This scholarship will ordinarily be divided between two men.

MATTHEW AND MARY E. BARTLETT (1916). Miss Fannie Bartlett, in memory of Matthew and Mary E. Bartlett. For the benefit of a worthy and meritorious student who is in need of financial assistance.

LUCIUS F. BILLINGS (1900). Lucius F. Billings. May be divided between two or more students.

DR. ROBERT BONNEY FUND (1944). Robert Bonney, M.D. 1898. For the aid of needy and meritorious students.

MEDICAL SCHOOL

HENRY FASSETT CASTLE (1941). William E. Castle, A.B. 1893, A.M. 1894, Ph.D. 1895, as a memorial to his son, Henry Fassett Castle, who died in November, 1919, at the age of 19, having completed the previous June the work of the first year in the Medical School.

DAVID WILLIAMS CHEEVER (1889). David Williams Cheever, A.B. 1852, M.D. 1858, LL.D. For a first year student after three months' study in the Medical School.

DAVID WILLIAMS CHEEVER #2 (1947). David Cheever, A.B. 1879, M.D. 1901. To be awarded at the beginning of the year to a first year medical student in hope that after the stated probationary period he may be awarded the scholarship founded by David Williams Cheever, A.B. 1852, M.D. 1858.

ELEANOR DWIGHT CLARK (1938). For one or more scholarships of the type of the Harvard National Scholarships.

OWEN COPP (1936). Hattie G. Copp. To assist one or more needy and worthy students.

COTTING GIFT (1900). Benjamin E. Cotting, A.B. 1834, M.D. 1837. Awarded on the basis of pecuniary need, intellectual capacity, faithfulness and earnest endeavor.

MYRON DENTON (1956). Myron P. Denton, in memory of his father.

ORLANDO W. DOE (1893). Orlando Witherspoon Doe, A.B. 1865, M.D. 1869. To be given annually to a deserving student in the Medical department.

GEORGE RUSSELL EAGER (1936). Miss Mabel T. Eager, in memory of her father.

HENRY EHRLICH MEMORIAL (1927). Friends and family of Henry Ehrlich, M.D. 1886. To be used for the assistance of needy and worthy students regardless of creed or color.

HARVARD UNIVERSITY

RUSSELL DUNSON ELLIOTT (1950). Awarded annually to properly qualified applicants, preferably of Anglo-Saxon ancestry.

HORACE PUTNAM FARNHAM (1918). Mrs. Eliza Cary Farnham in memory of her husband, Dr. Horace Putnam Farnham, A.B. 1843. For the benefit of meritorious students in the Harvard Medical School.

REGINALD FITZ (1954). Scholarships for students in the Harvard Medical School.

DR. E. PEABODY GERRY (1943). The income to aid first year students.

JUDGE AND MRS. SAMUEL JORDAN GRAHAM MEMORIAL (1961). E. Norma P. Graham.

CHARLOTTE GREENE (1925). Edwin Farnham Greene. For a first year student whose previous record indicates special promise.

DR. C. EUGENE GUNTHER (1933). Mrs. C. Eugene Gunther in memory of her husband. To be used to maintain two scholarships for the benefit of deserving medical students.

WILLIAM WAUGH HAGGART (1955). G. Edmund Haggart, M.D. In memory of his brother for scholarships, beneficiary aid or loans.

EDWARD WARREN HARNDEN (1957). William H. Snyder, Jr. and Monica H. Snyder. For scholarships, loans or other financial aid.

DR. CHARLES HARRINGTON (1959). In memory of Dr. Charles Harrington. Beneficiary aid for deserving students.

GEORGE HAVEN (1913). George Haven, M.D. 1883. To be used annually for scholarships for students of the first year in the Medical School.

LEWIS AND HARRIET HAYDEN (1894). Mrs. Harriet Hayden. For colored students. The income may be divided. If not

MEDICAL SCHOOL

awarded in the Medical School, the School of Public Health, or the School of Dental Medicine, it is open to colored students in any other department of the University.

WILLIAM HILTON (1897). Two scholarships annually in the Medical School.

WILLIAM OTIS JOHNSON (1911). Mrs. William O. Johnson, in memory of her husband, William Otis Johnson, A.B. 1845, M.D. 1848.

CLAUDIUS M. JONES (1893). Claudius Marcellus Jones, A.B. 1866, M.D. 1875.

ALFRED HOSMER LINDER (1895). Mrs. George Linder. For a student of sound principles and marked ability.

ARTHUR THEODORE LYMAN AND HENRY STURGIS GREW MEMORIAL SCHOLARSHIP (1926). On March 19, 1951, it was voted by the Corporation . . . "to provide that such income shall be available, until further order of this board, for scholarships in the Medical School, the School of Dental Medicine and the School of Public Health; preference to be given to Chinese students, with the understanding that if none such apply successfully, the income may be used for scholarships for students from elsewhere in the Far East."

MEDICAL SCHOOL CLASS OF 1879 (1909). Established by the Class of 1879 as a loan fund and later converted to a scholarship.

JAMES EWING MEARS, M.D. (1909). J. Ewing Mears. For a student throughout the full course of four years, subject to his scholastic standing and good conduct.

ERNEST OMAR NAY (1947). Ernest Omar Nay, M.D. 1919. For a medical student from the states of Indiana, Illinois or Ohio whose scholarship is above the average and whose financial resources are such that he cannot unaided acquire a medical education.

HARVARD UNIVERSITY

JOSEPH PEARSON OLIVER (1904). Patients of Joseph Pearson Oliver, M.D. 1871. To be awarded to a needy and deserving student of the Medical School.

JOHN ELIOT OVERLANDER (1947). John Eliot Overlander, M.D. 1909. To assist such needy medical students as may be deemed worthy of assistance by the proper authorities.

ALWIN M. PAPPENHEIMER '99 (1957). Beatrice L. Pappenheimer. For the benefit of such graduate students in the fields of medicine or music.

CHARLES B. PORTER (1897). William L. Chase.

DR. FLAVIUS SEARLE (1921). Miss Mary L. Searle, in memory of her father, Dr. Flavius Searle. The stipend may be divided.

JOSEPH J. SILBERT (1937). For scholarship or loans to needy students.

ELEANOR B. AND CHANNING S. SIMMONS (1954). Scholarships for two needy students.

FRANCIS SKINNER (1905). Francis Skinner, Esq. To be used in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses.

CHARLES PRATT STRONG (1894). Friends and patients of the late Charles Pratt Strong, A.B. 1876, M.D. 1881.

ISAAC SWEETSER (1892). Mrs. Anne M. Sweetser. To be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

JOHN THOMSON TAYLOR (1899). Mrs. Frederic D. Philips, in memory of her brother, John Thomson Taylor. To be paid to some meritorious undergraduate of the Medical School without regard to his pecuniary circumstances.

MARY THACHER (1956). Mary Thacher. To be applied against the tuition of needy students preferably from first, Yarmouth,

MEDICAL SCHOOL

Massachusetts, secondly from the Cape Cod region of Massachusetts, and thirdly from Massachusetts.

JAMES ROCKWELL TORBERT (1958). Elizabeth T. Torbert. In memory of her husband James Rockwell Torbert, H.M.S. 1902.

WALKER SCHOLARSHIPS (1922). Miss Leslie Walton Walker, four scholarships.

DR. CHARLES WALKER

HELEN L. WALKER

ANNA G. WALKER

LESLIE W. WALKER

RICHARD H. WALLACE (1960). The family and friends of Richard H. Wallace, H.M.S. 1927.

ABRAHAM A. WATSON (1923). Miss Catherine E. Walker. For the benefit of students in the Medical School.

MAJOR HARRISON BRIGGS WEBSTER, U.S.A. MEMORIAL (1921). Gift of L. Florence Webster in memory of her son, Class of 1905, to sons of members of that class or to a needy student in the Medical School.

EDWARD WIGGLESWORTH (1897). The family of Edward Wigglesworth, A.B. 1861, M.D. 1865.

JAMES F. AND HELENA C. M. WILLIS (1961). Helena C. M. Willis. For a student who is a native of Boston.

PAUL RICHMOND WITHINGTON, JR. (1960). The family and friends of Paul Richmond Withington, Jr.

S. BURT WOLBACH (1955). Dr. and Mrs. Robert E. Gross.

SCHOOL OF DENTAL MEDICINE SCHOLARSHIPS

As part of the Harvard National Scholarship plan, prize scholarships are awarded to one or more members of each class

HARVARD UNIVERSITY

entering the Harvard School of Dental Medicine. The selection of recipients is based on academic promise without reference to financial need. The amount of the stipend, however, is in proportion to the student's actual necessities, except that a certain minimum award is granted to all prize scholars. In the event that a prize scholar has need of it, the amount of the award will be sufficient to cover his tuition in the School of Dental Medicine. Each student accepted by the Committee on Admission is considered as a candidate for a National Scholarship. *An individual application cannot be made.* The prize scholarship is awarded for one year. If the student maintains a satisfactory record, the scholarship will be renewed annually.

In addition to the National Scholarship, a limited number of scholarships is available to students enrolled in the School of Dental Medicine. These scholarships are awarded on the basis of academic excellence, financial need or a combination of these factors.

THE ALFORD FUND (1785). Mrs. Joanna Alford. To be used for scholarships for those students who are under low and indigent circumstances.

DWIGHT M. CLAPP (1926). Clara Josephine Clapp in memory of her husband, Dwight M. Clapp, D.M.D. 1882. For the education of a male student born in Massachusetts, preferably one who has a college education or training of a classical character.

DENTAL SCHOOL ALUMNI SCHOLARSHIP (1937). A gift of the Class of 1912.

THOMAS ALEXANDER FORSYTH (1929). Thomas Alexander Forsyth scholarship to two deserving men, awarded continuously until they have completed the course.

HARVARD DENTAL ALUMNI (1949). Selection of a candidate shall be based upon character, scholarship, and promise within the field of dentistry. The award may be offered as a scholarship

MEDICAL SCHOOL

to an undergraduate student of the third or fourth year or as a fellowship for graduate work.

EUGENE HANES SMITH (1920). Alumni Association. To be awarded to a third or fourth year student who has been a student in regular standing during the first and second years.

PETER E. STRAUSS (1922). Emily R. M. Strauss. In memory of her husband.

FELLOWSHIPS AND SCHOLARSHIPS AVAILABLE IN OTHER DEPARTMENTS OF THE UNIVERSITY AS WELL AS IN THE MEDICAL SCHOOL AND SCHOOL OF DENTAL MEDICINE

The fellowships, scholarships and loans listed below which are marked with an asterisk (*) give preference to, or are restricted to, students who come within the special terms set forth. Unless otherwise stated, applications should be made, before *February 20*, to the Deans of the Medical School and School of Dental Medicine.

*JOHN AUSTIN AMORY, CLASS OF 1907, SCHOLARSHIP FUND (1954). Gift of Roger Amory, Class of 1910, to establish "the John Austin Amory, Class of 1907, Scholarship Fund . . . to provide one or more scholarships for candidates for a degree in any college or graduate school of the University." Under certain conditions a grandson by male line of John Austin Amory, '07, may be entitled to the income. If no awards are made to preferential candidates, the income shall be assigned to the College Admission and Scholarship Committee.

ANONYMOUS No. 55 (1952). Anonymous gift "to provide one or more scholarships or beneficiary grants to graduates or undergraduates in Harvard University. These awards shall be based on need and character and not scholarship alone."

EDWARD AUSTIN BEQUEST (1899). For fellowships or scholarships in any department of the University.

HARVARD UNIVERSITY

JASON S. BAILEY FUND (1952). Residuary bequest of Jason S. Bailey. For scholarships in any department of the University.

FRANK B. BAIRD, JR. FUND (1955). Gift of the Frank B. Baird, Jr. Foundation, to establish the Frank B. Baird, Jr. Scholarship. Income assigned to the Graduate School of Education.

ELLEN S. BATES FUND (1929). Residuary bequest of Ellen S. Bates. For scholarships to deserving students in any department of the University. To be awarded every third year, with the next award to be made in 1964.

***BAXENDALE SCHOLARSHIP (1928).** Bequest of Esther M. Baxendale. Preference: (1) descendants of Alan Bedford Hudson; (2) students of the name of Baxendale or Hudson; (3) students from Brockton, Mass., or Bourne, Mass. Birth certificates and genealogical record required of (1).

***BRIGHT LEGACY (1880).** Bequest of Jonathan Brown Bright. For descendants of Henry Bright, Jr., of Watertown, Mass., who bear the name of Bright, registered in any department of the University. If no awards are made to preferential candidates, the income shall be assigned to the College Admission and Scholarship Committee. Birth certificate and genealogical record required to establish special claim.

***DANIEL A. BUCKLEY BEQUEST (1905).** Bequest of Daniel A. Buckley of Cambridge, Mass. For needy and worthy graduates of Latin, High and other public non-sectarian schools in Cambridge enrolled in any department of the University. Awards to undergraduates will be made by the College Admission and Scholarship Committee.

***GODFREY L. CABOT, INC. SCHOLARSHIP FUND (1955).** For scholarships and grants of "aid" to students enrolled in any department of the University. A son of an employee of Godfrey L. Cabot, Inc. or of its subsidiary and associated companies, who applies for aid or a scholarship, may be preferred in the awards from this fund.

MEDICAL SCHOOL

*MADAME MARGUERITE CARRIERE FELLOWSHIP FUND (1959). Residuary bequest of Louis A. Freedman in memory of his wife. The fellowship is to be awarded in alternate years to a graduate student at Harvard University for study in France and to a French graduate student for study at Harvard University. It is hoped that the aim of the American student in France will be to study the French traditions and attitude so as to better understand and explain the French reaction to the problems that concern both countries and that similar aim will guide the French student in America.

*VICTOR EMMANUEL CHAPMAN MEMORIAL FELLOWSHIP (1917). Several donors. In memory of Victor Emmanuel Chapman, A.B. 1913, killed in World War I. For a French youth (or youths) for study in any department of the University. Apply through the Institute of International Education, 1 East 67th Street, New York 21, New York, *before February 1*. Students already enrolled at Harvard should apply through their Schools.

*JOSEPH HODGES CHOATE MEMORIAL FELLOWSHIP (1919). Gift of the Harvard Club of New York City in memory of Ambassador Joseph Hodges Choate, A.B. 1852. Awarded upon the nomination of the Vice-Chancellor of the University of Cambridge, England, to a British subject coming from that University to study in any department of Harvard University.

*GEORGE CHASE CHRISTIAN MEMORIAL SCHOLARSHIPS (1936). Gift of Carolyn McKnight Christian in memory of her husband, George Chase Christian, A.B. 1895. To be awarded as National Scholarships to residents of Minnesota, for study in any department of the University, preferably the graduate schools.

*MARK D. CORY SCHOLARSHIP (1954). Residuary bequest of Mark D. Cory. To be awarded to a worthy graduate of the Gadsden High School, Gadsden, Alabama to be selected and designated by the faculty of said high school. Available for students in any department of the University. Administered by the College Admission and Scholarship Committee.

HARVARD UNIVERSITY

*MYER DANA AND ETTA DANA SCHOLARSHIP FUND (1953). Gift of Etta (Mrs. Myer) Dana. To provide scholarships or beneficiary aid to needy and deserving students in the College, Law School or Medical School. Awards are made upon the recommendation of the Deans of these Schools and *not* upon application.

*CHARLES DOWNER SCHOLARSHIP FUND (1927). Bequest of Charles Downer, A.B. 1889, LL.B. 1892. For students in any department of the University in the following order of preference:

- A. Students of "English or Anglo-Saxon stock" who bear the family surname of Downer by right of birth or inheritance, and not because of adoption, preference to be given to such students who are descendants of Joseph and Robert Downer, of Wiltshire, England, who came to America about 1650. Scholarship awards under this category will be sufficient to pay for tuition, books, food, room and other incidentals in any academic year.
- B. Descendants of members of the Harvard College Class of 1889 who are in need of assistance.
- C. Residents of the State of Vermont, preference to be given to those most worthy of assistance.
- D. Students worthy of assistance and of high scholarship, preference to be given to (1) Descendants of graduates of Harvard College, and (2) Those "of that old Anglo-Saxon stock which has gone forth from New England into all parts of the United States and has been the means of giving strength and stability and character to our government."

Or, any balance of income remaining after the award of scholarships as specified in paragraphs A, B and C above may be used for fellowships for Harvard graduates of high scholarship and of rare and unusual ability who are pursuing special work either at Harvard or at any American or foreign university or school.

JOSEPH EVELETH BEQUEST (1896). For needy and worthy students in any department of the University.

MEDICAL SCHOOL

***THOMAS HOOKER FLINT MEMORIAL SCHOLARSHIP (1957).** Established by the friends and family of Thomas Hooker Flint, Harvard College Class of 1958, who died in 1957 in a climbing accident on Mount Madison, in the White Mountains, New Hampshire. The scholarship may be awarded either to students in Harvard College or Harvard Medical School, with preference for graduates of the Belmont Hill School. Thomas Flint was born in Concord, Mass., April 22, 1936, attended Belmont Hill School, and entered Harvard College in the Class of 1958 as an Honorary National Scholar, and hoped to attend Harvard Medical School. The scholarship is established in the conviction that those who benefit from it will fulfill the promise of his short life, as expressed in the closing words of a prayer known to have been Thomas Flint's guide in life: "Help us to make the life of our youth as lovely as the world in which it lives; the brotherliness of humanity equal to the beauty of nature."

GAGE SCHOLARSHIP (1948). Bequest of Homer Gage, A.B. 1882, M.D. 1887. In memory of Thomas H. Gage, M.D. 1852, Homer Gage, 1882, Thomas H. Gage, Jr., 1886, and Homer Gage, Jr., 1918. For students registered in any department of the University.

***JEAN GAILLARD MEMORIAL FELLOWSHIP (1946).** Established in memory of Jean Gaillard, a student of the Ecole Centrale des Arts et Manufactures in Paris, who served as an Aspirant in the French Air Forces, was arrested by the German Gestapo, and died in the German concentration camp at Ravensbrueck April 16, 1945, a victim of Nazi inhumanity. For French youths for study in any department of Harvard University or of the Massachusetts Institute of Technology. The incumbents from year to year are to be nominated by the Board of Directors of the Ecole Centrale des Arts et Manufactures in Paris.

JOHN TYLER HASSAM MEMORIAL SCHOLARSHIP (1941). Bequest of Eleanor Hassam in memory of her father, John Tyler Hassam, A.B. 1863. For students registered in any department of the University.

HARVARD UNIVERSITY

*LEWIS AND HARRIET HAYDEN SCHOLARSHIP FOR COLORED STUDENTS (1894). Residuary bequest of Mrs. Harriet Hayden. For needy and worthy colored students in the Medical School, School of Public Health and Dental School; or, if not awarded in these Schools, in any department of the University. Administered by the Medical School.

NATHAN HAYWARD MEMORIAL SCHOLARSHIP FUND (1956). Gift of Anna S. (Mrs. Nathan) Hayward in memory of her husband. For Nathan Hayward Scholarships or aid to students in any department of the University.

*CHARLES W. HOLTZER FELLOWSHIPS (1929). Bequest of Charles W. Holtzer. For young men of German birth who have received their preliminary education in German institutions of learning, to study in any department of the University. Preference is given to students in Germany at the time of application. Students in Germany may apply either through the Deutscher Akademischer Austauschdienst, Nassestrasse 11, Bonn, or the Institute of International Education, 1 East 67th Street, New York 21, New York, *before February 1*. Students enrolled at Harvard should apply through their Schools. Documentary proof of German birth and education required.

EDWARD WILLIAM HOOPER MEMORIAL (1905). The gift of friends of Edward W. Hooper, A.B., 1859, LL.B. 1861. For one or more fellowships in any department of the University.

CHARLES LLOYD HUFF SCHOLARSHIP FUND (1949). Residuary bequest of Anna Elizabeth (Mrs. Charles Lloyd) Huff, in memory of Charles Lloyd Huff, A.B. 1913. Income assigned to the College Admission and Scholarship Committee.

SINCLAIR KENNEDY FUND (1948). Gift of Mrs. Rae B. Kennedy in memory of her husband, Sinclair Kennedy, A.B. 1897, LL.B. 1906. For grants to students enrolled in any of the graduate departments of the University for travel and residence outside the United States. "This fund to provide grants for travel is created

MEDICAL SCHOOL

in the belief that an opportunity to observe and to compare, to seek meanings and reasons, may enlarge the understanding of the traveller and, through him, be of general value." Not open to competition by undergraduates, including graduating seniors, in the College. Recommendations for Kennedy Fellowships are made *on behalf* of students by the Deans or Chairmen of the Departments in which the student is registered. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 35 Weld Hall, *before February 1*.

*FRANK KNOX MEMORIAL (1946). Gift of Annie Reed Knox in memory of her husband, Col. Frank Knox, LL.D. (Hon.) 1942, Secretary of the Navy, 1940-44. "It is my hope that this fund . . . will play a part in an integrated program of exchange fellowships throughout the world. The Frank Knox Memorial is established because of the firm belief of my dear husband, a conviction which I share, that cooperation between the British Commonwealth and the United States of America, based upon an informed and understanding contact of the peoples of these two great countries, is an essential to international peace." Candidates shall be selected on the basis of future promise of leadership, strength of character, keen mind, a balanced judgment and a devotion to the democratic ideal. Fellowships are to be awarded annually to:

1. Students coming from the following British Commonwealth countries: the United Kingdom, Australia, New Zealand, Canada and Newfoundland. Students should apply through their university *before November 1* of the year preceding award.
2. Recent graduates of Harvard College, or students who have completed at least one year of study in one of the Harvard graduate schools, for study in any one of the countries listed above.

HARVARD UNIVERSITY

Procedure for graduate students. Recommendations for Knox Fellowships are made on behalf of students by the Deans or Chairmen of the Departments in which the student is registered. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 35 Weld Hall, *before February 1.*

Procedure for College students (graduating seniors only). Recommendations for Knox Fellowships are made on behalf of students by their Department Chairmen and House Masters or Senior Tutors. Application material is due *March 1* in the Office of the Dean of the College, Room 4, University Hall. Nominees are selected by informal interviewing committees.

*ARTHUR LEHMAN FUND (1936). Gift of Adele L. (Mrs. Arthur) Lehman and her daughters and sons-in-law, Mr. and Mrs. Richard J. Bernhard, Mr. and Mrs. Benjamin J. Bittenwieser and Mr. and Mrs. John L. Loeb, in memory of Arthur Lehman, A.B. 1894. For Arthur Lehman Fellowships to be awarded along the general lines of the Harvard National Scholarship Plan. For students of exceptional merit and promise in the graduate and professional schools only of the University, preference to be given to the following: Graduate School of Arts and Sciences, Graduate School of Education, Medical School, Graduate School of Design and Graduate School of Public Administration.

HORACE LOUIS LEITER MEMORIAL SCHOLARSHIP (1955). Bequest of Marietta D. Leiter in memory of her husband, Dr. Horace Louis Leiter, A.B. 1899. For deserving students in any department of the University.

GEORGE VASMER LEVERETT SCHOLARSHIP (1958). Residuary bequest of George Vasmer Leverett of the Class of 1867. To "establish new scholarships or fellowships."

MEDICAL SCHOOL

*LINCOLN SCHOLARSHIP (1876). Residuary bequest of Miss Levina Hoar. Preference for needy and worthy students from Lincoln, Mass. If there are no such applicants, the income is assigned to the College Admission and Scholarship Committee for award to undergraduates.

CHARLES R. LOWELL AND ANNA L. LOWELL SCHOLARSHIP (1949). Residuary bequest of Anna L. (Mrs. Henry E.) Woodbury for the establishment of two scholarships, to be known as "The Charles R. Lowell and Anna L. Lowell Scholarship" and "The James J. Lowell and Anna L. Woodbury Scholarship" for "worthy, deserving and indigent young men who may be shown to be unable to pay their tuition." Available for award in any department of the University. Income assigned to the College Admission and Scholarship Committee.

JAMES J. LOWELL AND ANNA L. WOODBURY SCHOLARSHIP (1949). Residuary bequest of Anna L. (Mrs. Henry E.) Woodbury, *see above*. Income assigned to the College Admission and Scholarship Committee.

FRANCES E. MARKOE RESIDUARY BEQUEST (1944). Residuary bequest of Frances E. (Mrs. Harry) Markoe for the establishment of scholarships for students in any department of the University.

*ALWIN M. PAPPENHEIMER '99 FUND (1957). Bequest of Beatrice L. (Mrs. Alwin M.) Pappenheimer, in memory of her husband; "the income therefrom to be used for any kind of financial assistance, whether for tuition, books, necessary maintenance and support or otherwise to graduate students in the College or in any graduate school of the University, suggesting, but not binding the President and Fellows of Harvard College hereby, that the said income be preferably used for the benefit of such graduate students in the fields of medicine or music." The income is allocated equally between the Medical School and Graduate School of Arts & Sciences. Awards made by the scholarship committees of those schools.

HARVARD UNIVERSITY

JOHN PARKER BEQUEST (1873). Bequest of John Parker for fellowships to further the scientific education either abroad or in the United States (including Harvard University) of exceptionally talented graduate students devoting themselves to the study of one of the natural sciences. Not open to competition by undergraduates, including graduating seniors, in the College. Candidates from the following areas are considered: Divisions of Engineering and Applied Physics (if candidate's field is concerned with a natural science), Geological Sciences and Medical Sciences; Departments of Astronomy, Biology, Chemistry and Physics. Recommendations for Parker Fellowships are made *on behalf* of students by the Chairmen of the Divisions and Departments listed above. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 35 Weld Hall, *before February 1*.

***FREDERICK E. PARLIN FUND (1928).** Bequest of Albert Norton Parlin. For needy and worthy students in any department of the University, preference to be given to natives of Malden or Everett, Mass. Evidence that applicant is a native of either Malden or Everett should accompany application of student seeking to establish preferential claim.

***WILLIAM PENNOYER BEQUEST (1670).** Bequest of William Pennoyer of England, for two fellows and two scholars; one preferably to be a descendant of Robert Pennoyer (a brother of William) and the other . . . [from] . . . New Haven [Colony]. Preference to be given to undergraduate descendants. Pennoyer descendants in the graduate schools may apply for the Pennoyer Scholarship by filing such application directly with the College Admission and Scholarship Committee. Certified genealogical records required to establish claim.

***ARISTIDES EVANGELUS PHOUTRIDES MEMORIAL (1925).** Gift of friends of Aristides Evangelus Phoutrides, A.B. 1911, Ph.D. 1915,

MEDICAL SCHOOL

to provide a scholarship in his memory for a student of Greek birth or of Greek parentage in any department of the University. Documentary evidence of Greek birth or parentage required of applicants.

*PRINCETON FELLOWSHIP (1910). Gift of Cleveland H. Dodge. To be awarded to a graduate of Princeton University, for his first year of study only, in one of the graduate departments of Harvard University. Applications should be made to the Dean of the Graduate School of Princeton University *before January 20*.

*LEON W. REDPATH SCHOLARSHIP (1938). Bequest of Eliza Allen (Mrs. Ellis W.) Redpath in memory of her son Leon W. Redpath, A.B. 1898. For deserving students from the State of Ohio, registered in any department of the University, with preference to residents of Stark and Tuscarawas Counties.

FRANKLIN REYNOLDS FUND (1925). Residuary bequest of John F. Reynolds. For students in any department of Harvard University and Radcliffe College who are natives of Marblehead, Mass. Application should be accompanied by evidence that applicant is a native of Marblehead.

*JAMES A. RUMRILL SCHOLARSHIPS (1909). Gift of Anna Chapin (Mrs. James A.) Rumrill in memory of her husband James Augustus Rumrill, A.B. 1859, to establish three scholarships, two of which are available to graduates of secondary schools in Virginia, North and South Carolina, Florida, Georgia, Tennessee and Kentucky, for their *first* year of residence as undergraduates in Harvard College. The third scholarship is for a graduate of a college or university in any of the above-named states for study in his *first* year of residence in any graduate department of Harvard University. These scholarships are not renewable. In the absence of properly qualified candidates from the above-named states, the scholarships may be thrown into general competition, as two undergraduate scholarships and one graduate scholarship. Entering students in the College apply to the College Admission

HARVARD UNIVERSITY

and Scholarship Committee; entering students in the graduate departments apply through the Deans' Offices of their Schools.

ARTHUR SACHS SCHOLARSHIP AND FINANCIAL AID FUND (1958). Gift of Arthur Sachs, Class of 1901, of Paris. "To make an enduring contribution to the relations between the two countries (the United States and France), by enabling an increasing number of the most deserving and able students in France to study in the United States." The income of this fund will "provide financial assistance for French students enrolled or to be enrolled" in Harvard University. Nominations are made by the Sachs Scholarship Committee in Paris. Inquiries from French students should be addressed to Cultural Attaché, United States Information Service, 4 avenue Gabriel, Paris 8^e, France.

*PETER BROOKS SALTONSTALL '43 MEMORIAL (1947). Gift of the family of Peter Brooks Saltonstall, 1943, who was killed in action on the Island of Guam on August 13, 1944. Peter B. Saltonstall was the son of Leverett Saltonstall, A.B. 1914, LL.B. 1917, United States Senator from Massachusetts and formerly Governor of Massachusetts. To further the education, the health and welfare of the peoples inhabiting the Hawaiian Islands and those islands west of Hawaii, including New Zealand, the Fiji Islands and Australia and also Japan, South Korea, Hong Kong, Formosa, the Philippine Islands, Vietnam, the East Indies, Indonesian Islands, Sumatra and Thailand. The first preference is that the income of this fund be used for scholarships or fellowships to assist worthy students from the above-named Pacific regions to gain a better education at Harvard University. The stipend shall be set to supplement the holder's income sufficiently to defray all his basic expenses of tuition, board and room, and in certain instances some travel allowance may be included. Students may apply directly to Harvard or through the Institute of International Education, 1 East 67th Street, New York 21, New York, *before February 1*. Students already enrolled at Harvard should apply through their Schools.

In the event that no suitable candidate for the scholarship ap-

MEDICAL SCHOOL

pears, the unexpended income and its accumulation shall be available for the support of research to better the living conditions or the general well-being of the peoples in the Pacific region described above, such research grants to be made by vote of the Corporation on the recommendation of the Dean of the Faculty of Arts and Sciences.

CHARLES N. SHAW FUND (1960). Bequest of Charles Nason Shaw. For the support of needy and deserving students in any department of the University.

FREDERICK SHELDON FUND (1909). Residuary bequest of Amey Richmond (Mrs. Frederick) Sheldon, in memory of her husband. The income of this Fund is "to be applied . . . to the further education of students of promise and standing in the University by providing them with facilities for further education by travel after graduation or by establishing travelling scholarships."

Every holder of a Sheldon Fellowship, or Sheldon Prize Fellowship, must be a member of the University at the time of his appointment and must hold a Harvard degree, or be a candidate for a degree in June of the year of appointment.

Procedure for graduate students. Recommendations for Sheldon Fellowships are made *on behalf* of students by the Deans or Chairmen of the Departments in which the student is registered. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 35 Weld Hall, *before February 1*. Holders may enroll at universities in this country — outside Harvard University — or abroad, for purposes of formal study or research, or they may engage in travel, or they may combine travel and study.

*ERNEST FREDERICK SLATER SCHOLARSHIP (1955). Bequest of Ernest F. Slater. The income to be awarded as scholarships in any department of the University to deserving (financially or other-

HARVARD UNIVERSITY

wise) young men who are residents of (a) the City of Orangeburg, South Carolina; (b) the State of South Carolina; preference to be given to descendants by birth or adoption of Edward Frederick Slater, father of the donor, regardless of their residence. Not open to students in their first year at the University.

*CHARLES H. SMITH BEQUEST (1947). Residuary bequest of Charles H. Smith. For awards to students in any department of the University according to the following order of preference:

1. a. Graduates of public high schools in Providence, Rhode Island, who are of scholarship rank.
b. Graduates of public high schools in Providence, Rhode Island, who are below scholarship rank but who are considered eligible for financial aid.
2. Graduates of other (non-public) secondary schools in Providence, Rhode Island, who are of scholarship rank.
3. Any residents of Rhode Island not indicated above who are of scholarship rank.

*WILLIAM STOUGHTON BEQUEST (1701). Bequest of Lieutenant Governor William Stoughton, A.B. 1650. For awards to students in any department of the University according to the following order of preference: (a) Residents of Dorchester or Mattapan, Mass.; (b) Residents of Milton, Mass.; (c) Any needy and deserving students.

JOHN E. THAYER SCHOLARSHIPS (1857). Bequest of John E. Thayer, the income to be paid "to the ten most meritorious scholars in Harvard University in Cambridge every year . . . the income shall only be paid to such meritorious scholars as who may actually need the same."

*AUGUSTUS CLIFFORD TOWER FELLOWSHIP FUND (1927). Gift of Louise G. (Mrs. Augustus Clifford) Tower for two fellowships to be awarded annually to:

1. A graduate of Harvard College who may be either a graduating senior or a student enrolled in one of the graduate departments

MEDICAL SCHOOL

of the University, for study in a French university, preference to be given to a student of Anglo-Saxon descent. Graduating seniors should consult their Department Chairmen, House Masters or Senior Tutors in regard to the application procedure. Graduate students should consult their Deans or Department Chairmen. Nomination, on the basis of application material and interview, is made by a special selection committee to the Committee on General Scholarships.

2. A French student for study in any graduate department of Harvard University. French students should apply through the Directeur, École Normale Supérieure, 45 rue d'Ulm, Paris 5^e, France, *early in January*.

In addition to the above fellowships, a sum from the Tower Fund is set aside annually for a travel grant to either a graduating senior or a student enrolled in one of the graduate departments of the University, who is nominated by a special selection committee to attend the École Normale Supérieure in Paris, on a fellowship provided by the French Government. Candidates should be United States citizens. For application procedure see paragraph 1 above.

UNIVERSITY GENERAL SCHOLARSHIP FUND (1951). Established by the President and Fellows of Harvard College. For scholarships to students in any School or department of Harvard University.

*THOMAS E. UPHAM CLASS OF 1868 FUND (1939). Bequest of Marcella B. Upham. May be granted annually to worthy graduates of Harvard College in any department of the University who are "preparing to serve our country in public offices of trust and responsibility in the gift of the people, students of American parentage descended from the early settlers to be chosen in preference to others, provided they are equally worthy of assistance."

*ANNA VAUGHN FOUNDATION (1935). Residuary bequest of John Vaughn, A.B. 1879. For "meritorious students of Harvard University who are pursuing studies in any biological science."

HARVARD UNIVERSITY

SARAH L. VIEHMANN SCHOLARSHIP (1936). Gift of Henry Bluestone, A.B. 1906, in memory of his mother, Sarah L. Viehmann. For deserving students in the College or graduate departments of the University.

*JENS AUBREY WESTENGARD FUND (1954). Bequest of Rebecca Aubrey Westengard. "The income is to be applied . . . to the further education of students of promise and standing in any department of the University by providing them with facilities for further education in Europe, Britain, or South America, by travel or study, or to the further education of students of promise and standing in any of those countries, by providing them with facilities for further education by travel and study in this country, preferably by study in some department of Harvard University." Students enrolled in, or expecting to enroll in, the Law School should ordinarily apply for the Jens Iverson Westengard Fund administered by that School.

*1902 WORLD WAR MEMORIAL SCHOLARSHIP (1923). Gift of the Class of 1902 in memory of their classmates, André Chéronnet-Champollion, Edward Ball Cole and Elbert Walker Shirk, and to be awarded by preference to: (1) deserving sons of 1902 men killed in World War I; (2) deserving descendants of members of the Class of 1902. Open to students in any department of the University, with preference to undergraduates. If no awards are made to preferential candidates, the income shall be assigned to the College Admission and Scholarship Committee.

*JEFFRIES WYMAN SCHOLARSHIPS (1924). Bequest of Mary Wyman Davis in the name of Susan Wyman and Mary Wyman Davis. For one or more students in any graduate department of the University "who may have given promise of success in some branch of Biological Research," preference to be given to students of anatomy. Nominations are made before *March 1* to the Committee on General Scholarships by a committee consisting of the Hersey Professor of Anatomy, the James Stillman Professor of Comparative Anatomy and the Director of the Museum of Comparative Zoölogy.

MEDICAL SCHOOL

BENEFICIARY AND LOAN FUNDS

In addition to General Scholarships, there are available for the assistance of students the following Beneficiary and Loan Funds:

BENEFICIARY FUNDS

*CHARLES WILLIAM ELIOT FUND (1926). Established by the alumni in honor of Charles William Eliot on the occasion of Mr. Eliot's resignation as President and in recognition of his forty years of service. The income is to be divided between (a) grants of aid to descendants in the direct line of Mr. Eliot who need financial assistance and who are enrolled in any department of the University or in Radcliffe College, and (b) the support of instruction and research in Landscape Architecture.

*CALVIN AND LUCY ELLIS AID (1899). Bequest of Calvin Ellis, A.B. 1846, M.D. 1849, supplemented by a residuary bequest under the will of his sister, Miss Lucy Ellis. To pay the fees of tuition and instruction, the cost of text-books, room-rent and reasonable board, of such descendants of David Ellis and Beulah Newell, formerly of Dedham, Mass. and John Ellis and Hannah Ellis, formerly of Walpole, Mass., as may be students in any department of Harvard University. Birth certificate and proof of descent from Ellis family required.

HARRISON-DARLING-JENKS MEMORIAL FUND (1935). Bequest of Miss Laura Darling Jenks. For aiding students in attaining an education at Harvard University. Income assigned to the College Admission and Scholarship Committee.

LOAN FUNDS

The following Loan Funds are to be used for students in any department of the University. Students apply through their own Deans. Loans are made according to the terms ordinarily applied by the individual Schools. Applications may be obtained from the several Deans' Offices or from the General Scholarship Office, 35 Weld Hall.

HARVARD UNIVERSITY

*JOHN W. APPEL LOAN FUND (1919). Restricted to descendants of John W. Appel of Lancaster, Pennsylvania, or their appointees.

FRANK GAYLORD COOK LOAN FUND (1951).

*THE HARVARD CLUB OF WASHINGTON, D.C., LOAN FUND (1957). Preference for students resident in the Washington, D.C. area.

*NEW CENTURY CLUB OF BOSTON LOAN FUND (1926). Preferably for men pursuing courses of study in Hebraic literature, culture and philosophy.

JESSIE SMITH NOYES FOUNDATION, INC. LOAN FUND (1960). To establish a revolving loan fund.

NELSON ROBINSON, JR. LOAN FUND (1941).

JAMES G. RODGER LOAN FUND (1883).

WILLIAMS FUND (1942).

PRIZES

MEDICAL SCHOOL

ISAAC ADLER (1934). Frida Adler. To be awarded once in three years for the best piece of original research within that period in the United States or Canada on any subject within the medical or allied sciences.

HARVARD MEDICAL ALUMNI ASSOCIATION PRIZE. To be awarded each year to the Permanent President of the Graduating Class. It has three purposes: to extend a greeting from the old Alumni to the new, to accord respect to the graduating class by honoring its chosen leader, to select for honor a man with whom long and cordial association is confidently anticipated.

BOYLSTON FUND FOR MEDICAL PRIZES (1803). Dr. Ward Nicholas Boylston. For the promotion of research in medical, anatomical, physiological or chemical subjects relating to medical science.

HENRY ASBURY CHRISTIAN (1937). Dr. Samuel A. Levine. To be awarded annually on or about the seventeenth of February,

MEDICAL SCHOOL

which is Dr. Christian's birthday, to the student in the Fourth Year Class who has displayed diligence and notable scholarship in his studies and offers promise for the future.

LEON REZNICK MEMORIAL PRIZE (1958). To be awarded to a fourth year student who has shown excellence and accomplishment in research conducted during his period of study at the Harvard Medical School. Candidates for the award must submit a typewritten paper to the Dean's Office by April 1.

JAMES TOLBERT SHIPLEY PRIZE (1952). Harriet S. Parker. Awarded as a prize for research carried out by a medical student, the results of which have been published or accepted for publication. Candidates for the award must submit papers to the Dean's Office by April 1.

SOMA WEISS AWARD. Awarded each year at the Undergraduate Assembly (see page 90).

SCHOOL OF DENTAL MEDICINE

HARVARD DENTAL ALUMNI MEDALS (1953). The Harvard Dental Alumni Association awards its gold and silver medals annually for all-around scholastic excellence.

HARVARD ODONTOLOGICAL SOCIETY (1949). The Harvard Odontological Society each year presents a Certificate of Merit to the best Senior Seminar Essayist of that year. This senior is selected by the Awards Committee of the School of Dental Medicine.

DR. GRACE MILLIKEN (1950). An award given annually when practicable, but at least once in three years, for an outstanding essay on the general subject of dental health.

LOAN FUNDS

Apply to Assistant Dean for Student Affairs

Loan funds are available in the Medical School to which students who are in need of money may make application.

HARVARD UNIVERSITY

In case of unforeseen emergency, loans may be made at any time. Loans are usually made to meet term bills and cash is provided rarely. Short term loans, for a period of less than six months, are available under special circumstances.

Ordinarily, loans are made at an interest rate of 1% per year, chargeable on the first of July and continuing at this rate until the July 1st subsequent to the completion of three years following a borrower's graduation from the School. Thereafter, interest at the rate of $4\frac{1}{2}\%$ per year is charged annually on July 1st on outstanding loans.

In cases where the student borrower, for any reason, leaves the School prior to graduation, interest at the rate of 1% will be charged from the date of the loan until the date of separation from the School, and interest at the rate of $4\frac{1}{2}\%$ will be charged thereafter.

Notes are payable at any time but become due on July 1st five years after graduation.

Application should be made to the Assistant Dean for Student Affairs.

MEDICAL SCHOOL

FRANK W. AND CARL S. ADAMS MEMORIAL LOAN FUND (1955). Established by the Charles E. and Caroline J. Adams Trust as a revolving loan fund.

DAVID L. EDSALL REVOLVING LOAN FUND (1928). Dr. Frederick C. Shattuck established this fund by gift of \$100,000 to be used as a revolving loan fund.

CHARLES WILLIAM ELIOT LOAN FUND (1924). Given anonymously in honor of President Eliot. Principal and interest to be used for loans to students in the Medical School.

GEORGE B. AND LOUISE KERPER FUND (1956). Established by Edmund Kerper as a revolving loan fund in memory of George B. and Louise Kerper.

MEDICAL SCHOOL

GEORGE W. MERCK MEMORIAL FUND (1959). Established by the Merck Company Foundation as a revolving loan fund to assist fourth year students in financing their internships.

HARVARD WAR LOAN (1920). HARRIET P. KEITH LOAN (1921). FRANCIS I. PROCTOR AID FUND (1942). Harvard Medical School Loan (1954).

SCHOOL OF DENTAL MEDICINE

THE CHRISTIAN SOLDIER FUND (1925). Established by Miss Caroline F. Anderson for promising dental students. The loan carries no interest but the recipient must sign a note obligating him to repay the loan not later than five years from the date of the note.

DENTAL ALUMNI LOAN FUND (1927). Established and maintained by the Dental Alumni Association for financial aid to worthy students.

LUCINDA DAVIS FERNALD FUND (1936). A small fund, the gift of Adelbert Fernald, D.M.D. 1896, to be loaned to deserving New England-born students of good character.

ROBERT T. MOFFATT FUND (1925). A small fund from various contributors in memory of Robert T. Moffatt, D.M.D. 1895, for the benefit of needy and deserving students.

SCHOOL OF DENTAL MEDICINE REVOLVING LOAN FUND (1952). Recognizing the need for student loan money in the School, the President and Fellows of Harvard College authorized an appropriation to establish this fund.

SCHOOL OF DENTAL MEDICINE LOAN FUND (1953). An appropriation from the School's funds to establish additional loan money for needy students.

HARVARD UNIVERSITY

LECTURESHIPS

The Edward K. Dunham Lectures for the promotion of the medical sciences have been given annually since 1923 by eminent investigators and teachers in one of the branches of the medical sciences or of the basic sciences which contribute toward the advance of medical science in the broadest sense. The lectures are open to the Faculty and students of the Harvard Medical School and College and all other interested professional persons. The lectures are given under the fund established for that purpose by Mary Dows Dunham in memory of her husband, Dr. Edward K. Dunham.

The George W. Gay Lectures upon Medical Ethics are given annually at the Harvard Medical School. The fund for the establishment of these lectures was given in 1917 by Dr. George W. Gay.

The J. Howard Mueller Lectures are given annually at the Harvard Medical School. The fund for the establishment of these lectures was established in 1958 to honor the late J. Howard Mueller, Charles Wilder Professor of Bacteriology and Immunology.

The Alpha Omega Alpha Lecturer is to be nominated each year by the Alpha Omega Alpha Society. The honorarium and expenses of the lectureship to be supported from the fund established by the Society in 1952.

The Hanns Sachs Lectures in the field of Freudian psychoanalysis are supported by a gift in memory of Dr. Sachs. One or more may be given in any year.

The Dr. Andrew Yeomans Lectureship Fund has been established by members of the Class of 1934 and the Class of 1935 and friends in memory of Dr. Yeomans. Lectures are to be given annually and the lecturer will be chosen from young clinicians in the fields of clinical research by a committee named by the donors.

MEDICAL SCHOOL

THE CANCER COMMISSION OF HARVARD UNIVERSITY

Under the will of the late Mrs. Caroline Brewer Croft a sum of money was received in 1899 for the investigation of the cause and treatment of cancer. Since that time other sums have been contributed for cancer research and the Cancer Commission of Harvard University has been organized.

The Commission supports the Huntington Hospital beds, out-patient department, and cancer research laboratories at the Massachusetts General Hospital. It provides a service for pathological diagnosis of tumor tissue for the State of Massachusetts. This service was transferred in 1951 from the buildings of the Harvard Medical School to the Cancer Research Institute of the New England Deaconess Hospital. This service is carried on in part in a special laboratory at the Lemuel Shattuck Hospital, in part in laboratories at the Cancer Research Institute of the New England Deaconess Hospital.

The functions of the Cancer Commission are exercised by the Committee on Research and Development which is made up of the following members: Nathan Marsh Pusey, Chairman; George Packer Berry, Roy Orval Greep, Francis Keppel, James Robbins Reynolds, John Crayton Snyder, Lewis Gard Wiggins, Henry Coe Meadow, Executive Secretary.

RESEARCH FUNDS

Application for support of investigations falling within the scope of any of the following research funds should be sent to the Chairman of the Committee or to the Dean.

REAR ADMIRAL W. L. CAPPS FUND

In 1949 a bequest was received from Edna Ward Capps to be known as the Rear Admiral W. L. Capps Fund, the income from which, under certain circumstances, to be used broadly for the

HARVARD UNIVERSITY

cure and treatment of persons afflicted with diabetes. George W. Thorn, M.D., is Chairman of the Committee administering the income from this fund.

PROCTOR FUND

A bequest of fifty thousand dollars by Ellen Osborne Proctor, for the purpose of promoting the study of chronic diseases, subsequently has been increased by an additional fifty thousand dollars from another member of the Proctor family. The income of this fund is to be devoted to investigations into the nature and treatment of chronic diseases and the care of persons afflicted with these diseases while in hospitals for such investigations. Arthur T. Hertig, M.D., is Chairman of the Committee administering the income from this fund.

WILLIAM W. WELLINGTON FUND

In 1925 a bequest was received from William H. Wellington to establish the "William W. Wellington Memorial Research Fund." The income of this fund is to be applied for research concerning the etiology and therapeutics of the diseases of man. Arthur T. Hertig, M.D., is Chairman of the Committee administering the income from this fund.

COURSES FOR GRADUATES

The object of this department of the Medical School is to offer to graduates in Medicine opportunities to continue their studies in a thorough and scientific manner.

For information concerning courses offered, the *Catalogue of Courses for Graduates* should be consulted.

Facilities at the Harvard Medical School and the abundant clinical opportunities in the various hospitals are available for graduate instruction. Eugene C. Eppinger, M.D., Assistant Dean, is in charge.

MEDICAL SCHOOL

SCHOOL OF PUBLIC HEALTH

The School of Public Health is one of the graduate schools of the University. Instruction and research opportunities are available in the several disciplines which underlie the protection of health and the investigation and control of diseases in communities. Some of these disciplines cut across fields in the medical, physical, and social sciences, and include such entities as biostatistics, epidemiology, public health practice, environmental hygiene, and sanitary engineering. Other significant aspects of public health are represented by departments of microbiology, nutrition, tropical health, and maternal and child health.

Much of the teaching and research activity of the School is concerned with international health problems and the preparation of people for work in this field.

Students enrolled in the Medical School may take courses at the School of Public Health with the approval of the Head of the Department concerned. For further information, apply to the Registrar at 55 Shattuck Street.

OPPORTUNITIES FOR RESEARCH

The laboratories of the Medical School and its associated hospitals provide exceptionally rich opportunities for each medical student to participate in a research program in the field of his special interest. The wide variety of investigations underway in basic and clinical sciences assures each student of the facilities to learn special techniques and to pursue an investigation of his choice.

Each medical student is encouraged to devote some of the free time during the school year and the summer months to a research program. Exceptional students may be permitted to withdraw from medical school for a year to devote full time to research. Any student in good academic standing and who has shown promise in research may be granted the privilege of devoting up to six months of his fourth scholastic year to research under the Honors

HARVARD UNIVERSITY

Tutorial System in place of certain of the clinical courses usually required. A limited number of fellowships are available for the support of students engaged in summer and part-time research.

Any student interested in undertaking research is urged to discuss his program with one of the Honors Tutors.

THE UNDERGRADUATE ASSEMBLY

The Undergraduate Assembly, held late in the spring of each year under student auspices, provides an opportunity for students from all classes to present formally the results of their investigations to the students and Faculty of the Medical School. The Soma Weiss Award is made at this meeting.

ANNOUNCEMENT OF COURSES *

The "Announcement of Courses" comprises a description of the four years in Medical School, followed by a statement of the general plan of instruction offered by each Department. There is also a résumé of the elective and voluntary courses.

GENERAL PLAN OF THE FIRST TWO YEARS

In general, during the first semester of each of the first two years, individual departments introduce selected material characteristic of their particular disciplines. In the second semester of each year, the departments collaborate in the presentation of a unified approach to various problems of human biology.

In the first year, the first semester is devoted to a study of gross anatomy, an introduction to histology and cytology, and to the fundamentals of physiology and biochemistry. During the second semester, the anatomy (macro- and micro-), physiology and biochemistry relevant to studies of the body fluids, respiration,

* Special pamphlets are issued describing the opportunities for elective and voluntary work and outlining the conditions under which such work may be undertaken.

MEDICAL SCHOOL

DIVISION OF STUDIES

TOTAL NUMBER OF HOURS FOR EACH SUBJECT

FIRST YEAR	SECOND YEAR	THIRD YEAR	FOURTH YEAR
Gross Anatomy . 225	Bacteriology . . 169	Medicine . . . 213	Medicine . . . 288
General Histology and Cytology . . 127	Pathology . . . 331	Dermatology . . . 37	Surgery . . . 288
Circulatory Physiology . . . 78	(including Parasitology and Neuro-pathology)	Neurology . . . 39	Obstetrics . . . 144
Cellular Biochemistry . . . 107	Pharmacology . 146	Psychiatry . . . 44	Pediatrics . . . 144
Respiration, Kidney, and Body Fluids 168	Pathologic Physiology * . 302	Ophthalmology . . . 32	Psychiatry . . . 144
Gastrointestinal and Endocrine Systems . . . 168	Growth and Development: Biostatistics . 18	Surgery . . . 181	Elective . . . 144
Neurosciences . 210	Introduction to Psychopathology . . . 24	Gynecology . . . 33	
Somatic Growth and Development . 86	Genetics . . . 2	G. U. Surgery . . . 27	
Psychic Growth and Development . 25	Pediatrics . . . 4	Laryngology and Otology . 40	
Tutorial . . . 36	Obstetrics and Gynecology . 4	Orthopedic Surgery . . . 38	
		Obstetrics . . . 128	
		Pediatrics . . . 68	
		Preventive Medicine . . . 135	
		Legal Medicine . . 12	

* A multidepartmental integrated course which includes Case Taking (Medicine and Surgery) and Laboratory Diagnosis.

HARVARD UNIVERSITY

the liver and the kidney, and the nervous, gastro-intestinal and endocrine systems is presented in an inter-departmental framework. A course entitled "Growth and Development," covering both somatic and psychic aspects is presented throughout the year (see below). A diagrammatic summary of these arrangements is presented on page 218.

In the first semester of the second year, the Departments of Bacteriology, Pathology and Pharmacology offer courses in their respective disciplines. A number of correlated interdepartmental exercises are also included. The last portion of the semester is devoted to chemotherapy taught jointly by the Departments of Bacteriology and Pharmacology.

During the second semester a correlated program in pathologic physiology is given. Mechanisms of disease are presented in a unified course by members of the Departments of Gynecology, Medicine, Neurology, Obstetrics, Pathology, Pediatrics, Pharmacology, Preventive Medicine, Psychiatry, Radiology, Surgery, and Tropical Public Health. In addition, practical instruction in the taking of case histories and physical examinations is given on the wards and out-patient departments of the hospitals at which there are Harvard teaching units. Aspects of "Growth and Development" are again discussed throughout the year (see below). A diagrammatic summary of the arrangements for the second year is presented on page 219.

The course entitled "Growth and Development" embraces a series of lectures, laboratories and clinics in a variety of subjects, with the objects of offering further integration of the material of the first two years, and providing a smooth transition into the third and fourth year courses. It is concerned with the whole individual in his setting, with emphasis on both physical and psychological growth. In the first year, discussions are in general centered about the normal individual, and topics such as embryology, genetics, and the fundamentals of normal behavior are presented. A series of clinics relates the material of the course in the first year to problems of human development and variation. During the second year, in addition to an introduction to the

MEDICAL SCHOOL

evaluation of data by biostatistical methods, a series of lectures develop further concepts of individual psychologic functioning. Emphasis now shifts to the nature and genesis of abnormal psychological mechanisms which result from both social and physical factors and are manifested in symptoms and behavioral disturbances. Again consistent with the trend in the second year, the clinics deal with the demonstration of abnormal physiological mechanisms which affect the function of the various organ systems.

GENERAL PLAN OF THE THIRD AND FOURTH YEARS

The instruction in the third and fourth years is carried on at the teaching hospitals affiliated with the Medical School. It is designed to teach the student to apply the principles of normal and abnormal human biology, acquired in the first two years, to the diagnosis and treatment of disease.

In the third year the teaching is by lectures, clinical demonstrations and practical work with patients. The practical instruction takes place in small groups on the wards or in the outpatient departments of the hospitals. Courses are required in Dermatology, Genito-urinary Surgery, Gynecology, Legal Medicine, Medicine, Neurology, Obstetrics, Ophthalmology, Otology and Laryngology, Orthopedic Surgery, Pediatrics, Preventive Medicine, Psychiatry, and Surgery.

In the fourth year the student continues his broad study of disease and begins to assume some responsibility for the care of patients. This is accomplished by service as a clinical clerk on the hospital wards and as an assistant in the outpatient clinics. Eight months of work is required: two months each of Medicine and Surgery; one month each of Obstetrics, Pediatrics, and Psychiatry; and at least one month of an elective course. In addition, students may elect courses for one, two, or three additional months by working during the summer between the third and fourth years.

HARVARD UNIVERSITY

ELECTIVE AND VOLUNTARY COURSES

In addition to the requirement of one elective course in the fourth year, an opportunity for voluntary work is offered to first, second, and third year students on free afternoons, and to fourth year students during the additional months mentioned above. It is believed that students will welcome a chance to keep in touch with the most recent developments in the fundamental sciences; that an interest in certain fundamental subjects will have been aroused by their clinical work; or that they may feel the desire for additional exploration in some field. Students are not required to take this work. It is entirely a voluntary matter, and no credit is given.

There are also opportunities for association with voluntary groups interested in studying the economic, social and historical aspects of medicine.

THE TUTORIAL PROGRAM AND STUDENT RESEARCH

The Tutorial Program was established in 1923 to foster student interest and participation in research. In 1957 it was expanded to provide each entering student with a tutor. Some twenty-five Tutors in Medical Sciences were appointed to enable first-year students to meet informally in groups of five with a tutor. These weekly meetings are intended to assist the student in organizing and correlating his knowledge and to point out the implications and applications of the knowledge of basic science gained in the formal courses to clinical medicine and to research. The proper design of experiments and the interpretation of data are considered. These are not intended to be review sessions or to prepare students for examinations in the formal courses, but to develop better understanding of the medical sciences as a whole and of medicine as an art and profession.

The expanded Tutorial System provides an opportunity for each student to become well acquainted with some member of the Faculty to whom he may turn for advice in planning his medical career and in other matters.

MEDICAL SCHOOL

The Honors Tutorial Program of the second, third and fourth years is designed primarily to aid students who wish to undertake original research in one of the medical sciences during their medical school careers. Students doing research, or planning to do research, are assigned to the appropriate Tutor for guidance. The Tutors may organize seminars and symposia to assist students to decide on a field of research or to formulate a specific research problem. They also help the student by placing him with the member of the Faculty whose research interests are in this field and who is best suited to guide this research.

Students may devote free time during the school year and the summer months to this research problem. Fellowships are available for the financial support of student research both during the summer months and during the school year. Fourth year students who have shown promise in extracurricular research may request the privilege of replacing certain clinical courses with four to six months completely free for research in any of the basic sciences or in any of the clinical divisions. Application for this privilege must be made before March 1 of the student's third year. Students also have the opportunity to withdraw from medical school for a year to pursue a research problem. (See section on "Opportunities for Research" page 89.) The results of the research may be presented as a thesis at the end of the fourth year in support of the student's candidacy for the medical degree with Honors in a Special Field.

HARVARD UNIVERSITY

Abbreviations used in the following pages, and in the tabular views:

B.C.H. = Boston City Hospital.	M.M.H.C. = Massachusetts Mental Health Center.
B.I.H. = Beth Israel Hospital.	Mt.A.H. = Mount Auburn Hospital.
B.L.I.H. = Boston Lying-in Hospital.	N.E.C.H. = New England Center Hospital.
C.H.M.C. = The Children's Hospital Medical Center.	N.E.D.H. = New England Deaconess Hospital.
C.M.C. = Children's Medical Center.	P.B.B.H. = Peter Bent Brigham Hospital.
F.H.W. = Free Hospital for Women.	P.L.I.H. = Providence Lying-in Hospital.
H.M.S. = Harvard Medical School.	R.B.B.H. = Robert Breck Brigham Hospital.
L.I.H. = Long Island Hospital.	S.D.M. = School of Dental Medicine.
McL.H. = McLean Hospital.	S.P.H. = School of Public Health.
M.E.E.I. = Massachusetts Eye and Ear Infirmary.	W.R.V.A.H. = West Roxbury Veterans' Administration Hospital.
M.G.H. = Massachusetts General Hospital.	
M.I.T. = Massachusetts Institute of Technology.	

Anatomy

DON W. FAWCETT, M.D., Hersey Professor of Anatomy, Head of the Department, and Curator of the Warren Anatomical Museum.

ROY O. GREEP, Ph.D., A.M. (hon.), S.D. (hon.), Professor of Anatomy in the School of Dental Medicine.

SANFORD L. PALAY, M.D., Professor of Neuroanatomy (on leave July 1, 1961–February 28, 1962).

EDWARD A. EDWARDS, M.D., Associate Clinical Professor of Anatomy.

FRANKLIN F. SNYDER, M.D., A.M. (hon.), Associate Professor of Anatomy and Obstetrics.

GEORGE E. ERIKSON, Ph.D., Assistant Professor of Anatomy (part-time), and Associate Curator of the Warren Anatomical Museum.

ELIZABETH D. HAY, M.D., Assistant Professor of Anatomy, and Tutor in Anatomy.

MEDICAL SCHOOL

- CHARLES P. LYMAN, PH.D., Assistant Professor of Anatomy.
HELEN A. PADYKULA, PH.D., Assistant Professor of Anatomy.
JESSE F. SCOTT, M.D., Assistant Professor of Anatomy.
JAY B. ANGEVINE, JR., PH.D., Associate in Anatomy.
SUSUMU ITO, PH.D., Associate in Anatomy.
JEAN-PAUL REVEL, PH.D., Associate in Anatomy.
GALE G. CLARK, M.D., Lecturer on Neuroanatomy (from September 1, 1961).
WILLARD D. ROTH, PH.D., Instructor in Anatomy.
SERGEI P. SOROKIN, M.D., Instructor in Anatomy.
STANLEY J. ADELSTEIN, M.D., Philip H. Cook Fellow in Radiology, and Instructor in Anatomy.
WIKTOR DJACZENKO, M.D., Research Fellow in Anatomy (from September 1, 1961).
WOLF H. FAHRENBACH, PH.D., Research Fellow in Anatomy (from August 1, 1961).
GERALDINE F. GAUTHIER, M.S., Research Fellow in Anatomy.
SAUL R. HILFER, PH.D., Research Fellow in Anatomy.
ELIZABETH TABER, PH.D., Research Fellow in Anatomy.
ROBERT WINCHESTER, S.B., Research Fellow in Anatomy (appointment expired August 31, 1961).
RICHARD E. COGGESHALL, M.D., Teaching Fellow in Anatomy.
GORDON S. EDWARDS, A.B., Teaching Fellow in Anatomy (from September 1, 1961).
GERALD MOSS, M.D., Teaching Fellow in Anatomy (from October 1, 1961 through January 31, 1962).
C. FRANCIS ROE, M.B., CH.B., Teaching Fellow in Anatomy (October 1, 1961 through January 31, 1962).
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Affiliated:

- CARL S. HOAR, JR., M.D., Instructor in Surgery.
JAMES T. IRVING, PH.D., M.D., Professor of Physiology at the Forsyth Dental Infirmary for Children.
KEITH MERRILL, JR., M.D., Assistant in Surgery.

HARVARD UNIVERSITY

RICHARD L. SIDMAN, M.D., Assistant Professor of Neuropathology.
WILLIAM H. TIMBERLAKE, M.D., Clinical Associate in Neurology.

The Department of Anatomy offers instruction in gross human anatomy, histology and cytology, embryology and neuroanatomy. Opportunities are also afforded for advanced work and research in these subjects. The Department occupies the Morgan Anatomical Building in the first three floors of the wing designated as BI, and the first two floors of BII. This space includes offices and research laboratories of the staff, rooms for graduate students and fellows, seminar rooms, a photographic department and laboratories devoted to histochemistry, tissue culture, and electron microscopy.

There is a large departmental library containing complete files of the important journals in the fields of anatomy, developmental biology, and experimental cytology, together with many standard textbooks and works of reference. The library is open to staff, students and others, on a non-circulating basis.

The Minot Embryological Collection is a unique feature of the laboratory. It comprises approximately twenty-three hundred series of sections of selected vertebrate embryos representing a wide range of species and therefore affords opportunities for research in comparative embryology such as cannot be found elsewhere.

The Department also has valuable neurological material for both teaching and research, including two entire human brains cut serially in the transverse and horizontal planes, with the sections alternately stained by the Pal-Weigert and Nissl methods.

REQUIRED COURSES

ANATOMY A AND B. *First Year.*—The courses of the first year are intended to teach human anatomy, both gross and microscopic, together with the essentials of human embryology and neurology.

In the study of gross anatomy, students make a complete dissection of the human body in the first semester. Four students are assigned to the same body, and will work together during the course. The study of the skeleton is carried on concurrently with the dissection, and each student is provided with a box of bones which may be kept throughout the course. There are lectures and demonstrations which

MEDICAL SCHOOL

will serve to emphasize the clinical application of gross anatomical relations and to teach certain aspects of human biology not adequately treated in the textbooks. Special dissections made by prosectors from the second year class, and various anatomical specimens and preparations will be displayed to supplement the student's own dissections. Students are urged to study these specimens and to discuss them informally with the instructors.

That part of the course in microscopic anatomy given in the first semester is intended to give the student familiarity with the normal structure of cells and tissues as they appear under light microscope and with their finer structure as revealed by the electron microscope. The histology presented in the second semester forms part of the correlative teaching in which the structure, physiology and biochemistry of the major organ systems are studied. Demonstrations of fresh tissue are prepared for examination with phase contrast and interference microscopy, and special cytological and histochemical preparations are displayed to present the broad range of techniques used in morphological investigations.

Embryology is taught in conjunction with the principles of genetics in a series of lectures extending throughout the first semester.

Neuroanatomical instruction is given as a part of the section of correlative teaching designated Neurosciences.

FIRST YEAR

HOURS

Lectures. Drs. FAWCETT, PALAY, EDWARDS, ERIKSON, HAY, PADYKULA, SCOTT, SIDMAN, SZABO, ANGEVINE, ITO, REVEL, ADELSTEIN, ROTH, and SOROKIN.

Demonstrations. *To sections of the class, at the pleasure of the instructors.*

Laboratory work.

455

ELECTIVE AND VOLUNTARY COURSES

1. Surgical Anatomy. Dr. EDWARDS and Associates. Whole course, one month.
20. Investigation in:
 - Cytology and cell ultrastructure. Drs. FAWCETT and ITO.
 - Experimental embryology. Dr. HAY.
 - Histophysiology and histochemistry. Dr. PADYKULA.

HARVARD UNIVERSITY

Human and comparative anatomy. Dr. ERIKSON.

Environmental and comparative physiology. Dr. LYMAN.

Neuroanatomy. Dr. ANGEVINE.

Physiology

EUGENE M. LANDIS, M.D., PH.D., S.M. (hon.), A.M. (hon.),
George Higginson Professor of Physiology, and Head of the
Department.

A. CLIFFORD BARGER, M.D., Professor of Physiology.

FRANCIS H. C. CRICK, PH.D., Visiting Professor of Biophysics
(March 1 through March 31, 1962).

MICHAEL KASHA, PH.D., Visiting Professor of Biophysics (Sep-
tember 1 through October 31, 1961).

AHARON KATCHALSKY, PH.D., Visiting Professor of Biophysics
(September 25 through December 20, 1961).

JOHN R. PAPPENHEIMER, PH.D., Career Investigator of the Amer-
ican Heart Association, Visiting Professor of Physiology,
and Tutor in Physiology.

*ARTHUR K. SOLOMON, PH.D., D.PHIL., Associate Professor of
Biophysics.

THOMAS H. WILSON, M.D., PH.D., A.M. (hon.), Associate Pro-
fessor of Physiology.

RICHARD P. DURBIN, PH.D., Assistant Professor of Biophysics (re-
signed July 15, 1961).

ELWOOD HENNEMAN, M.D., Assistant Professor of Physiology, and
Ella Sachs Plotz Fellow in Physiology.

WILLIAM B. KINTER, PH.D., Assistant Professor of Physiology.

ERNST KNOBIL, PH.D., Assistant Professor of Physiology (re-
signed July 31, 1961).

PETER F. CURRAN, PH.D., Associate in Biophysics.

ELKAN R. BLOUT, PH.D., Lecturer on Biophysics.

WILLIAM A. H. RUSHTON, PH.D., Visiting Lecturer on Physiology
(December 1 through December 31, 1961).

DONALD L. D. CASPAR, PH.D., Research Associate in Biophysics
(from November 1, 1961).

* Appointment under the Committee on Medical Research in Biophysics.

MEDICAL SCHOOL

DAVID W. GLENISTER, PH.D., Instructor in Physiology.

S. RICHARD HEISEY, Sc.D., Instructor in Physiology.

ERNEST PAGE, M.D., Instructor in Biophysics (from October 1, 1961).

MARCELINO CEREJIDO, M.D., Research Fellow in Biophysics (from September 1, 1961).

CHARLES J. EDMONDS, M.B., B.S., Research Fellow in Physiology (from September 1, 1961).

WOLFGANG EPSTEIN, M.D., Research Fellow in Biophysics.

BENZ Z. GINZBURG, PH.D., Research Fellow in Biophysics.

RUDOLPH J. GOERKE, M.D., Research Fellow in Biophysics.

DAVID A. GOLDSTEIN, M.D., Research Fellow in Biophysics.

HIROSHI HAGIHARA, M.D., Research Fellow in Physiology.

DENYS HELD, M.D., Research Fellow in Physiology (from October 1, 1961).

JAMES A. HERD, M.D., Research Fellow in Physiology.

FRANCISCO K. HERRERA, M.D., Research Fellow in Physiology (appointment expired September 30, 1961).

MILTON HOLLENBERG, M.D., Research Fellow in Physiology.

RAJA N. KHURI, M.D., Research Fellow in Biophysics (July 1 through December 31, 1961).

HUGH H. KOPALD, M.D., Research Fellow in Physiology (from September 1, 1961).

BERND LINDEMANN, M.D., Research Fellow in Physiology (appointment expired December 31, 1961).

DAVID L. MAUDE, M.D., Research Fellow in Biophysics (from September 1, 1961).

STANLEY G. SCHULTZ, M.D., Research Fellow in Biophysics.

STANLEY THOMAS, M.D., Research Fellow in Biophysics (September 1 through December 31, 1961).

GEOFFREY D. THORBURN, M.B., M.S., Research Fellow in Physiology.

MARGARET E. WICKSON, PH.D., Research Fellow in Biophysics.

RAYMOND B. WUERKER, M.D., Research Fellow in Physiology.

HARVARD UNIVERSITY

Affiliated:

JEAN MAYER, PH.D., D.SC., Associate Professor of Nutrition,
S.P.H.

REQUIRED COURSE

PHYSIOLOGY A. *First Year.*—Lectures are designed to acquaint the student with the more fundamental aspects of physiology and to consider in detail those portions of the subject that are essential to an understanding of the phenomena of health and disease in man.

By means of laboratory exercises the student is introduced as rapidly as possible to the observational methods and techniques available for studying function in man. Then equal emphasis is placed upon exercises illustrating in animals the experimental procedures employed for the detailed analysis of function and for the acquisition of a fundamental knowledge of physiology.

Conferences and demonstrations supplement the more formal instruction. Correlation with other medical sciences is stressed (see page 88 above).

FIRST YEAR

HOURS

Lectures and laboratory work. Drs. BARGER, DURBIN, GLENISTER, HEISEY, HENNEMAN, KINTER, LANDIS, PAPPENHEIMER, SOLOMON and WILSON.

220

ELECTIVE AND VOLUNTARY COURSES

20. Physiological Investigation in:

Cardiovascular and renal function. Drs. BARGER, KINTER and LANDIS.

Gastro-intestinal Physiology. Dr. WILSON.

Neurophysiology. Dr. HENNEMAN and Dr. PAPPENHEIMER.

21. Use of Isotopes in Biological Research. Dr. A. K. SOLOMON. Investigation not less than one full course. For admission consult Dr. SOLOMON directly.

Biological Chemistry

EUGENE P. KENNEDY, PH.D., A.M. (hon.), Hamilton Kuhn Professor of Biological Chemistry, and Head of the Department.

MEDICAL SCHOOL

ERIC G. BALL, PH.D., S.D. (hon.), A.M. (hon.), Edward S. Wood Professor of Biological Chemistry, and Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences.

JORDI FOLCH-PI, M.D., A.M. (hon.), Professor of Neurochemistry at the McLean Hospital.

HERMAN M. KALCKAR, M.D., PH.D., A.M. (hon.), Professor of Biological Chemistry.

JOHN L. ONCLEY, PH.D., A.M. (hon.), Professor of Biological Chemistry.

LEWIS L. ENGEL, PH.D., Associate Professor of Biological Chemistry, and Permanent Faculty Fellow of the American Cancer Society.

ROGER W. JEANLOZ, D.Sc., A.M. (hon.), Associate Professor of Biological Chemistry at the Massachusetts General Hospital.

MANFRED L. KARNOVSKY, PH.D., A.M. (hon.), Associate Professor of Biological Chemistry.

*ARTHUR K. SOLOMON, PH.D., D.PHIL., Associate Professor of Biophysics.

CLAUDE A. VILLEE, JR., PH.D., A.M. (hon.), Associate Professor of Biological Chemistry at the Boston Lying-in Hospital, and Tutor in Biological Chemistry.

DWAIN D. HAGERMAN, M.D., Assistant Professor of Biological Chemistry (on leave July 1, 1961–June 30, 1962).

WALTER E. KNOX, M.D., Assistant Professor of Biological Chemistry at the New England Deaconess Hospital (on leave September 1, 1961–June 30, 1962).

SIDNEY V. RIEDER, PH.D., Assistant Professor of Biological Chemistry at the Massachusetts General Hospital.

CORNELIUS F. STRITTMATTER, 4TH, PH.D., Assistant Professor of Biological Chemistry (resigned August 31, 1961).

MARGARET J. HUNTER, PH.D., Lecturer on Biological Chemistry.

JOSEPH B. ALPERS, M.D., Associate in Biological Chemistry (from October 1, 1961).

STANDISH C. HARTMAN, PH.D., Associate in Biological Chemistry.

* Appointment under the Committee on Medical Research in Biophysics.

HARVARD UNIVERSITY

GEORGE HAUSER, PH.D., Associate in Biological Chemistry at the McLean Hospital.

FRANCIS N. LeBARON, PH.D., Associate in Biological Chemistry at the McLean Hospital.

EDMUND C. C. LIN, PH.D., Associate in Biological Chemistry.

DONALD F. H. WALLACH, M.D., Associate in Biological Chemistry.

ADELBERT AMES, 3RD., M.D., Research Associate in Biological Chemistry.

EDWARD J. BEHRMAN, PH.D., Research Associate in Biological Chemistry.

JOHN L. BETHUNE, PH.D., Research Associate in Biological Chemistry (from September 16, 1961).

CAROLYN COHEN, PH.D., Research Associate in Biological Chemistry.

DONALD G. COMB, PH.D., Research Associate in Biological Chemistry.

JOSEPH DOBKIN, PH.D., Research Associate in Biological Chemistry.

KANEY EBISUZAKI, PH.D., Research Associate in Biological Chemistry (from September 1, 1961).

GERALD D. FASMAN, PH.D., Research Associate in Biological Chemistry.

SHOU-CHENG J. FU, PH.D., Research Associate in Biological Chemistry.

LEON GOLDSTEIN, PH.D., Research Associate in Biological Chemistry.

RENE HONORATO, M.D., Research Associate in Biological Chemistry (from November 1, 1961).

LEWIS T. MANN, JR., PH.D., Research Associate in Biological Chemistry.

LEWIS C. MOKRASCH, PH.D., Research Associate in Biological Chemistry.

GORDON L. NORDBY, PH.D., Research Associate in Biological Chemistry (from September 1, 1961).

ERNEST T. PRITCHARD, PH.D., Research Associate in Biological Chemistry (from September 1, 1961).

MEDICAL SCHOOL

- ANNETTE M. C. RAPIN, PH.D., Research Associate in Biological Chemistry.
- WILLIAM J. REDDY, D.Sc., Research Associate in Biological Chemistry.
- JONAS E. RICHMOND, PH.D., Research Associate in Biological Chemistry.
- PIERRE J. STOFFYN, PH.D., Research Associate in Biological Chemistry.
- IRVING WELIKY, PH.D., Research Associate in Biological Chemistry.
- CLIFFE D. JOEL, PH.D., Instructor in Biological Chemistry.
- HENRY PAULUS, PH.D., Instructor in Biological Chemistry (from October 1, 1961).
- MERVYN ISRAEL, PH.D., Assistant in Biological Chemistry.
- NEIL BAGGETT, PH.D., Research Fellow in Biological Chemistry.
- COLIN H. BOLTON, PH.D., Research Fellow in Biological Chemistry (from September 1, 1961).
- ANNEMARIE CLOSSE, PH.D., Research Fellow in Biological Chemistry.
- ROBERT A. DARROW, PH.D., Research Fellow in Biological Chemistry (from November 15, 1961).
- JEAN P. FLATT, D.PHIL., Research Fellow in Biological Chemistry.
- HAROLD M. FLOWERS, PH.D., Research Fellow in Biological Chemistry (from September 1, 1961).
- HEIKO E. FRERICHs, M.D., Research Fellow in Biological Chemistry (resigned November 15, 1961).
- JACK M. GEORGE, M.D., Research Fellow in Biological Chemistry.
- JOHN R. GILBERTSON, PH.D., Research Fellow in Biological Chemistry.
- LORNA L. GILMORE, PH.D., Research Fellow in Biological Chemistry.
- ANUND HALLEN, M.D., Research Fellow in Biological Chemistry (from September 1, 1961).
- NANCY R. HARVIE, PH.D., Research Fellow in Biological Chemistry (from September 1, 1961).

HARVARD UNIVERSITY

- SHARAD G. JOSHI, PH.D., Research Fellow in Biological Chemistry
(from January 1, 1962).
- ROBERT L. JUNGAS, PH.D., Research Fellow in Biological Chemistry.
- JULIAN N. KANFER, PH.D., Research Fellow in Biological Chemistry.
- PHILIP C. KELLEHER, M.D., Research Fellow in Biological Chemistry.
- DONALD A. KELLOGG, M.D., Research Fellow in Biological Chemistry.
- ROGER J. B. KING, PH.D., Research Fellow in Biological Chemistry
(resigned September 22, 1961).
- JAMES P. KOCH, M.D., Research Fellow in Biological Chemistry
(from September 1, 1961).
- KESHO R. LAUMAS, PH.D., Research Fellow in Biological Chemistry
(from October 1, 1961).
- DAVID E. M. LAWSON, PH.D., Research Fellow in Biological Chemistry
(from November 1, 1961).
- MARJORIE C. LINDBERG, PH.D., Research Fellow in Biological Chemistry.
- RHODA K. MAKOFF, PH.D., Research Fellow in Biological Chemistry
(from October 1, 1961).
- MAKOTO MATSUMOTO, DR. PHARM., Research Fellow in Biological Chemistry
(appointment expired September 30, 1961).
- HIROSHI NIKAIKO, M.D., Research Fellow in Biological Chemistry
(from January 1, 1962).
- RACHEL OREN, PH.D., Research Fellow in Biological Chemistry
(resigned December 31, 1961).
- RONALD A. PIERINGER, PH.D., Research Fellow in Biological Chemistry.
- SARAH SHEFER, PH.D., Research Fellow in Biological Chemistry
(appointment expired September 30, 1961).
- DONALD H. TREBLE, PH.D., Research Fellow in Biological Chemistry
(from October 1, 1961).
- ROBERT ZAND, PH.D., Research Fellow in Biological Chemistry
(from September 1, 1961).

MEDICAL SCHOOL

JOSEPH EICHBERG, JR., B.S., Teaching Fellow in Biological Chemistry (from October 1, 1961).

WESLEY D. WICKS, M.A., Teaching Fellow in Biological Chemistry (from October 1, 1961).

Affiliated:

FINN BRUDEVOLD, D.D.S., A.M. (hon.), Professor of Dentistry at the Forsyth Dental Infirmary.

FREDRICK J. STARE, PH.D., M.D., Professor of Nutrition, S.P.H.

D. MARK HEGSTED, PH.D., Associate Professor of Nutrition, S.P.H.

JAMES H. SHAW, PH.D., Associate Professor of Biological Chemistry in the School of Dental Medicine.

GEORGE NICHOLS, JR., M.D., Assistant Professor of Medicine, and Assistant Dean for Curricular Affairs.

REQUIRED COURSE

BIOLOGICAL CHEMISTRY A. *First Year.*—During the first semester the lectures in Biological Chemistry discuss the chemical components of living matter and the metabolic processes common to all tissues. Laboratory work deals with the physical and chemical concepts necessary to an understanding of living processes, and the fundamental chemical characteristics of biological compounds and enzymatic reactions.

During the second semester the lectures and laboratory work in biochemistry are interwoven with those given by the Departments of Physiology and Anatomy. In the first six weeks the Department of Biological Chemistry will deal with the following topics: inorganic chemical composition of body tissues and fluids and physical chemical factors governing their control: the transport of O_2 and CO_2 in the blood and acid-base balance. The gastro-intestinal and endocrine systems will be studied in the second five-week period. The Department will present the chemical processes involved in digestion and absorption; the intermediary metabolism of the liver; the chemistry and metabolism of cholesterol, the bile acids, and the steroid hormones; and the regulatory effects of hormones in general on metabolism. In the third six-week period, which explores the neuro-sciences,

HARVARD UNIVERSITY

certain special aspects of the chemistry and metabolism of brain and nerve are the contributions of the Department of Biological Chemistry.

FIRST YEAR

HOURS

Lectures and laboratory work. Drs. ALPERS, BALL, ENGEL, FOLCH-PI, HAGERMAN, HAUSER, HEGSTED, HUNTER, KARNOVSKY, KENNEDY, KNOX, LeBARON, LIN, ONCLEY, PAULUS, SOLOMON, STARE, VILLEE, WALLACH.

220

ELECTIVE COURSES

20. Biological Chemistry and Nutrition. An opportunity is offered for special study in advanced biological chemistry and nutrition for one or more months. Arrangement for work may be made by consultation with members of the staff.
21. Use of Isotopes in Biological Research. Dr. A. K. SOLOMON. Investigation not less than one full course. For admission consult Dr. SOLOMON directly.

VOLUNTARY COURSES

30. Research. The Department welcomes students who wish to carry on research with a staff member. Consult the Department Head or an appropriate staff member for details.
31. Clinical Nutrition. Dr. STARE and Associates. Time to be arranged.
33. Physical Chemistry of Proteins and Other Biological Substances. Dr. ONCLEY and Associates. Two afternoons a week at 2:00 p.m. on days to be arranged. First half-year. Lecture and Laboratory work.

Bacteriology

BERNARD D. DAVIS, M.D., Professor of Bacteriology and Immunology, and Head of the Department.

GEORGE P. BERRY, M.D., LL.D., A.M. (hon.), S.D. (hon.), LITT.D., L.H.D., Professor of Bacteriology, and Dean of the Faculty of Medicine.

MEDICAL SCHOOL

ALBERT H. COONS, M.D., Career Investigator of the American Heart Association, and Visiting Professor of Bacteriology and Immunology.

JOHN F. ENDERS, PH.D., Professor of Bacteriology and Immunology at The Children's Hospital.

MONROE D. EATON, M.D., Associate Professor of Bacteriology and Immunology.

MAHLON B. HOAGLAND, M.D., Associate Professor of Bacteriology and Immunology, Ruby Boyer Miller Fellow in Medical Research, and Tutor in Bacteriology.

EDWARD H. KASS, PH.D., M.D., A.M. (hon.), Associate Professor of Bacteriology and Immunology.

HAROLD AMOS, PH.D., Silas Arnold Houghton Assistant Professor of Bacteriology and Immunology.

ARNOLD F. BRODIE, PH.D., Assistant Professor of Bacteriology and Immunology.

HARRIS S. MOYED, PH.D., Assistant Professor of Bacteriology and Immunology.

BYRON H. WAKSMAN, M.D., Assistant Professor of Bacteriology and Immunology at the Massachusetts General Hospital.

LUIGI C. GORINI, PH.D. (Equiv.), Lecturer on Bacteriology and Immunology.

LAWRENCE J. J. KUNZ, PH.D., Associate in Bacteriology and Immunology.

SIDNEY LESKOWITZ, PH.D., Associate in Bacteriology and Immunology at The Massachusetts General Hospital.

MORTIMER LITT, M.D., Associate in Bacteriology and Immunology.

SUMNER KALMAN, M.D., Visiting Lecturer on Bacteriology (from September 1, 1961).

WILLIAM J. KUHNS, M.D., Visiting Lecturer on Bacteriology and Immunology (from December 1, 1961).

BRIGITTE A. ASKONAS, PH.D., Research Associate in Bacteriology and Immunology.

YOSHIHIRO HAMASHIMA, M.D., Research Associate in Bacteriology and Immunology.

HARVARD UNIVERSITY

JEANA D. LEVINTHAL, M.D., Research Associate in Bacteriology and Immunology.

IOLANDA E. LOW, M.D., Research Associate in Bacteriology and Immunology.

BARBARA K. WATSON, PH.D., Research Associate in Bacteriology and Immunology.

HANS-JOBST WELLENSIEK, DR.MED., Research Associate in Bacteriology and Immunology (resigned December 15, 1961).

ELMER R. PFEFFERKORN, JR., PH.D., Instructor in Bacteriology and Immunology.

JOAN B. DANIELS, S.B., Assistant in Bacteriology and Immunology.

CHARLES T. AMBROSE, M.D., Research Fellow in Bacteriology and Immunology.

AKIRA ASANO, PH.D., Research Fellow in Bacteriology and Immunology.

ROGER P. ATWOOD, M.D., Research Fellow in Bacteriology and Immunology.

SIDNEY R. COOPERBAND, M.D., Research Fellow in Bacteriology and Immunology.

ANDRE CRUCHAUD, M.D., Research Fellow in Bacteriology and Immunology (from September 1, 1961).

GEZA DENES, M.D., Research Fellow in Bacteriology and Immunology (from September 1, 1961).

MARIO DIGIROLAMO, PH.D., Research Fellow in Bacteriology and Immunology (from September 1, 1961).

DONALD T. DUBIN, M.D., Research Fellow in Bacteriology and Immunology.

ANN E. FARNHAM, PH.D., Research Fellow in Bacteriology and Immunology.

DAVID S. FEINGOLD, M.D., Research Fellow in Bacteriology and Immunology.

THOMAS T. FUKUYAMA, PH.D., Research Fellow in Bacteriology and Immunology.

RONALD HANCOCK, PH.D., Research Fellow in Bacteriology and Immunology (from September 1, 1961).

MEDICAL SCHOOL

EDGAR C. HENSHAW, M.D., Research Fellow in Bacteriology and Immunology.

CARL A. HIRSCH, M.D., Research Fellow in Bacteriology and Immunology.

EDWIN B. HOROWITZ, PH.D., Research Fellow in Bacteriology and Immunology (from November 1, 1961).

TIMIO U. KOSUNEN, M.D., Research Fellow in Bacteriology and Immunology.

JOHN M. LANE, M.D., Research Fellow in Bacteriology and Immunology.

MEIR LEV, PH.D., Research Fellow in Bacteriology and Immunology.

JULIO I. MAIZTEGUI, M.D., Research Fellow in Bacteriology and Immunology.

ELI E. SERCARZ, PH.D., Research Fellow in Bacteriology and Immunology.

HARVEY M. SHEIN, M.D., Research Fellow in Bacteriology and Immunology.

LAURI D. THRUPP, M.D., Research Fellow in Bacteriology and Immunology.

SHIGezo UDAKA, PH.D., Research Fellow in Bacteriology and Immunology (from November 1, 1961).

KENJIRO YASUDA, M.D., D.M.S., Research Fellow in Bacteriology and Immunology (resigned July 31, 1961).

Affiliated:

JOHN C. SNYDER, M.D., Professor of Public Health Bacteriology, and Dean of the School of Public Health.

JOHN B. MACDONALD, D.D.S., M.S., PH.D., Professor of Microbiology in the School of Dental Medicine.

THOMAS H. WELLER, M.D., LL.D., Richard Pearson Strong Professor of Tropical Health in the School of Public Health.

HOWARD H. HIATT, M.D., Assistant Professor of Medicine.

JOHN G. HARTER, M.D., Research Associate in Medicine.

BARBARA W. KALCKAR, PH.D., Research Associate in Bacteriology and Immunology in the Department of Medicine.

HARVARD UNIVERSITY

J. GABRIEL MICHAEL, PH.D., Research Associate in Bacteriology and Immunology in the Department of Pediatrics at The Children's Hospital.

HOWARD S. RUBENSTEIN, M.D., Research Fellow in Surgery.

REQUIRED COURSE

BACTERIOLOGY A. *Second Year.*— This course consists of lectures, laboratory exercises, and conferences, designed to acquaint the student with the principles of bacteriology, virology, immunology, chemotherapy, and allergy. The fungi will also be briefly considered.

The first part of the course consists of an introduction to general microbiology, including the structure, physiology, metabolism, and genetics of bacteria and bacteriophage. Attention will then be given to the agents of infectious disease, with emphasis on properties that are useful in their identification and in understanding their pathogenicity. Exercises on host-parasite relations and allergy will be correlated with Pathology, while those on chemotherapy will be correlated with Pharmacology. Clinics held in various hospitals will introduce the student to infectious disease in man.

While the course is designed primarily as a preparation for later clinical work on infectious disease, considerable attention will also be given to illustrating the use of unicellular organisms in studying problems of cell physiology common to all cells including those of man.

SECOND YEAR

HOURS

Lectures, laboratory work, and conferences. Dr. DAVIS and Staff. *First half-year.* Most exercises take place on Monday, Wednesday, and Friday afternoons with conferences on Saturday mornings.

169

ELECTIVE COURSES

20. Research. Qualified students may arrange time with a member of the staff. Equipment and instruction are available for the usual procedures of the fields designated, and also for electron microscopy, animal cell culture, and localization of antigens and antibodies by fluorescence microscopy.

MEDICAL SCHOOL

Cell physiology and metabolism. Drs. DAVIS, HOAGLAND, GORINI, BRODIE, MOYED, NEIDHARDT.

Virology. Drs. ENDERS, EATON, AMOS, PFEFFERKORN.

Immunology. Drs. COONS, WAKSMAN, LESKOWITZ.

Medical bacteriology and chemotherapy. Dr. KASS.

VOLUNTARY COURSES

30. Research. Opportunity for research can be arranged for qualified students upon consultation with members of the staff.
31. General Virology. Half course (spring term). Drs. EATON, AMOS, PFEFFERKORN. Tuesday afternoon. Lectures and discussion.
32. Immunology. Half course (spring term). Drs. COONS, WAKSMAN, LESKOWITZ. Tuesday or Thursday afternoon. Lectures and discussion.

Pathology

ARTHUR T. HERTIG, M.D., Shattuck Professor of Pathological Anatomy, and Head of the Department.

BENJAMIN CASTLEMAN, M.D., Clinical Professor of Pathology.

JOHN M. CRAIG, M.D., Clinical Professor of Pathology.

GUSTAVE J. DAMMIN, M.D., Elsie T. Friedman Professor of Pathology.

SIDNEY FARBER, M.D., Professor of Pathology at The Children's Hospital.

DAVID G. FREIMAN, M.D., Clinical Professor of Pathology.

SHIELDS WARREN, M.D., D.Sc. (hon.), Professor of Pathology at the New England Deaconess Hospital.

IRA GORE, M.D., Associate Clinical Professor of Pathology.

SAMUEL P. HICKS, M.D., Associate Clinical Professor of Pathology.

PHILIP M. LeCOMPTE, M.D., Associate Clinical Professor of Pathology.

GUIDO MAJNO, M.D., A.M. (hon.), Associate Professor of Pathology, and Tutor in Pathology.

WILLIAM A. MEISSNER, M.D., Associate Clinical Professor of Pathology.

HARVARD UNIVERSITY

- RICHARD B. COHEN, M.D., Assistant Professor of Pathology at the Massachusetts General Hospital.
- OLIVE GATES, M.D., Assistant Clinical Professor of Pathology.
- EARL "E" HELLERSTEIN, M.D., Assistant Professor of Pathology.
- JOHANNES P. KULKA, M.D., Assistant Clinical Professor of Pathology.
- ROBERT E. SCULLY, M.D., Assistant Clinical Professor of Pathology.
- EDGAR B. TAFT, M.D., Assistant Professor of Pathology at the Massachusetts General Hospital.
- AUSTIN L. VICKERY, JR., M.D., Assistant Clinical Professor of Pathology.
- ROBERT FIENBERG, M.D., Lecturer on Pathology.
- BERNARD F. TRUM, D.V.M., Lecturer on Veterinary Medicine in the Department of Pathology.
- LEONARD ATKINS, M.D., Clinical Associate in Pathology (from January 1, 1962).
- JAMES B. CAULFIELD, M.D., Associate in Pathology at the Massachusetts General Hospital.
- BRADLEY E. COPELAND, M.D., Clinical Associate in Pathology.
- JOSEPH M. CORSON, M.D., Associate in Pathology at the Peter Bent Brigham Hospital.
- GEORGE W. CURTIS, M.D., Clinical Associate in Pathology.
- SHIRLEY G. DRISCOLL, M.D., Associate in Pathology at the Boston Lying-in Hospital.
- JAMES T. DUHIG, M.B., CH.B., Clinical Associate in Pathology.
- HAZEL M. GORE, M.B., CH.B., Associate in Pathology.
- THOMAS C. JONES, D.V.M., Clinical Associate in Pathology.
- MORRIS J. KARNOVSKY, M.B., CH.B., Associate in Pathology (on leave February 1, 1961–January 31, 1963).
- FRANZ VON LICHTENBERG, M.D., Associate in Pathology at the Peter Bent Brigham Hospital.
- RICHARD A. MACDONALD, M.D., Associate in Pathology.
- SI-CHUN MING, M.D., Clinical Associate in Pathology.
- WINFIELD S. MORGAN, M.D., Associate in Pathology at the Massachusetts General Hospital.

MEDICAL SCHOOL

- REUBEN Z. SCHULZ, M.D., Clinical Associate in Pathology.
JACOB N. SHANBERGE, M.D., Clinical Associate in Pathology.
RONALD C. SNIFFEN, M.D., Clinical Associate in Pathology.
GORDON F. VAWTER, M.D., Clinical Associate in Pathology.
JAMES H. GRAHAM, M.D., Lecturer on Pathology.
G. KENNETH MALLORY, M.D., Lecturer on Pathology.
WALTER G. J. PUTSCHAR, M.D., Lecturer on Pathology (appointment expired October 30, 1961).
STANLEY L. ROBBINS, M.D., Lecturer on Pathology.
SHELDON C. SOMMERS, M.D., Lecturer on Pathology (resigned September 15, 1961).
RICHARD A. ADAMS, PH.D., Research Associate in Pathology.
GIUSEPPE CARDINALI, M.D., Research Associate in Pathology.
ROY E. CROWDER, M.D., Research Associate in Pathology (appointment expired September 30, 1961).
GEORGE E. FOLEY, D.Sc., Research Associate in Pathology.
LIPPMAN H. GERONIMUS, PH.D., Research Associate in Pathology.
MORRIS N. GREEN, PH.D., Research Associate in Pathology.
ALFRED H. HANDLER, PH.D., Research Associate in Pathology.
ALBERT E. HIRST, M.D., Research Associate in Pathology (from October 1, 1961).
DAVID L. JOFTES, PH.D., Research Associate in Pathology.
LORNA D. JOHNSON, M.D., Research Associate in Pathology.
CHARLOTTE L. MADDOCK, PH.D., Research Associate in Pathology.
LARRY W. McDONALD, M.D., Research Associate in Pathology.
EDWARD J. MODEST, PH.D., Research Associate in Pathology.
FELIX RODRIGUEZ Y LEGASPI, M.D., Research Associate in Pathology.
AGNES B. RUSSFIELD, PH.D., M.D., Research Associate in Pathology.
ELLIOTT W. STRAUSS, M.D., Research Associate in Pathology.
BETTY B. G. UZMAN, M.D., Research Associate in Pathology.
GEORGE YERGANIAN, PH.D., Research Associate in Pathology.
LEONARD ATKINS, M.D., Instructor in Pathology (from July 1 through December 31, 1961).
RAMZI S. COTRAN, M.D., Instructor in Pathology.

HARVARD UNIVERSITY

- DIANE W. CROCKER, M.D., Instructor in Pathology.
CHARLES J. DE WAN, M.D., Instructor in Pathology.
ROBERT L. EHLMANN, M.D., Instructor in Pathology.
MARTIN H. FLAX, PH.D., M.D., Instructor in Pathology.
LAURENCE HENRY, M.B., CH.B., Instructor in Pathology.
JOHN D. HOUGHTON, M.D., Instructor in Pathology.
JOSEPH S. INCZE, M.D., Instructor in Pathology (from September 1, 1961).
MERLE A. LEGG, M.D., C.M., Instructor in Pathology.
ARTHUR A. LIKE, M.D., Instructor in Pathology.
JOSEPH C. MERRIAM, JR., M.D., Instructor in Pathology.
MIRIAM MOLDVEEN (GERONIMUS), M.D., Instructor in Pathology.
ARTHUR E. O'DEA, M.D., Instructor in Pathology.
GISELLE S. PECHET, M.D., Instructor in Pathology.
JOHN A. PETERS, M.D., Instructor in Pathology.
CHARLES R. ROBINSON, M.B., CH.B., Instructor in Pathology.
JAMES A. SHAKA, M.D., Instructor in Pathology.
STEPHEN M. SHEA, M.B., CH.B., Instructor in Pathology.
JOE SUYEMOTO, M.D., Instructor in Pathology.
ARON E. SZULMAN, M.B., CH.B., Instructor in Pathology.
PRISCILLA D. TAFT, M.D., Instructor in Pathology.
HAROLD J. WHITE, M.D., Instructor in Pathology.
ANTHONY BETTS, M.B., B.S., Assistant in Pathology (resigned July 31, 1961).
ROBERT A. BROOKS, M.D., Assistant in Pathology (from September 1, 1961).
GLENN J. CORLEY, M.D., Assistant in Pathology.
MARGARIDA N. DE M. DEDERICK, M.D., Assistant in Pathology.
GEORGE R. DICKERSIN, M.D., Assistant in Pathology.
DONALD FELDMAN, M.D., Assistant in Pathology.
JOSEPH E. FREYDINGER, M.D., Assistant in Pathology.
CARL A. HARRIS, PH.D., M.D., Assistant in Pathology.
MAURICE M. HELPERN, M.D., Assistant in Pathology.
MOUNIRA KHALAFALLAH, M.B., CH.B., Assistant in Pathology (from September 16, 1961).
ROBERT E. MCCARTHY, PH.D., Assistant in Pathology.

MEDICAL SCHOOL

- RUSSELL P. SHERWIN, M.D., Assistant in Pathology.
KAROLY BALOGH, M.D., Research Fellow in Pathology.
GRATO E. BUR, M.D., Research Fellow in Pathology (appointment expired July 31, 1961).
DAVID CHARLES, M.B., B.S., Research Fellow in Pathology (appointment expired September 30, 1961).
MUNETOMO ENJOJI, M.D., Research Fellow in Pathology (from October 1, 1961).
THOMAS J. GILL, 3RD., M.D., Research Fellow in Pathology.
CHARLEY E. GILMORE, D.V.M., Research Fellow in Pathology (from October 1, 1961).
RUDOLF HEIMANN, M.D., Research Fellow in Pathology.
HENRY A. LEON, PH.D., Milton Research Fellow in Pathology.
RENA TE L. MULLER, M.D., Research Fellow in Pathology.
POLIUS A. RASLAVICIUS, M.D., Research Fellow in Pathology.
MELVIN D. REUBER, M.D., Research Fellow in Pathology.
ADRIANNE E. ROGERS, M.D., Research Fellow in Pathology.
TINRAT STITNIMANKARN, M.D., Research Fellow in Pathology.
KENZO TANAKA, M.D., D.M.S., Research Fellow in Pathology (appointment expired February 15, 1962).
JOHN E. ADAMS, M.D., Teaching Fellow in Pathology.
JOHN F. BARLOW, M.D., Teaching Fellow in Pathology.
CHETTY A. BHAKTAVIZIAM, M.D., Teaching Fellow in Pathology.
MICHAEL D. BURKE, M.B., CH.B., Teaching Fellow in Pathology.
SHELDON COOPERMAN, M.D., Teaching Fellow in Pathology.
JOHN E. CRAIGHEAD, M.D., Teaching Fellow in Pathology.
ANDREW DEKKER, M.D., Teaching Fellow in Pathology.
DANIEL F. FOLEY, M.D., Teaching Fellow in Pathology.
EDWARD O. FOX, M.D., Teaching Fellow in Pathology.
HARVEY GOLDMAN, M.D., Teaching Fellow in Pathology.
LEWIS P. JAMES, JR., M.D., Teaching Fellow in Pathology.
HUBERT JOCKIN, M.D., Teaching Fellow in Pathology.
ROBERT K. JONES, M.D., Teaching Fellow in Pathology.
WALLACE A. JONES, M.D., Teaching Fellow in Pathology.
HERBERT I. KRICKSTEIN, M.D., Teaching Fellow in Pathology.
MIGUEL MARIN-PADILLA, M.D., Teaching Fellow in Pathology.

HARVARD UNIVERSITY

SAEED MEKBEL, M.D., Teaching Fellow in Pathology (appointment expired September 30, 1961).

PEN-MING L. MING, M.D., Teaching Fellow in Pathology.

HERMAN POLET, M.D., Teaching Fellow in Pathology.

EDWARD S. REYNOLDS, JR., M.D., Teaching Fellow in Pathology.

VICTOR J. ROSEN, JR., M.D., Teaching Fellow in Pathology.

GEORGE T. SMITH, M.D., Teaching Fellow in Pathology.

AKIO TAKEUCHI, M.D., Teaching Fellow in Pathology (appointment expired August 31, 1961).

ZYGMUNT M. TOMKIEWICZ, M.D., Teaching Fellow in Pathology.

KARL H. WEGNER, M.D., Teaching Fellow in Pathology.

MURRAY WITTNER, PH.D., M.D., Teaching Fellow in Pathology.

CAMILLUS L. WITZLEBEN, M.D., Teaching Fellow in Pathology (from September 1, 1961).

HUBERT J. WOLFE, M.D., Teaching Fellow in Pathology.

Affiliated:

DAVID G. COGAN, M.D., Professor of Ophthalmology, and Director of the Howe Laboratory of Ophthalmology.

EDWARD H. KASS, M.D., PH.D., Associate Professor of Bacteriology and Immunology.

JOHN C. SNYDER, M.D., Professor of Public Health Bacteriology, and Dean of the School of Public Health.

STEPHEN B. ANDRUS, M.D., Assistant Professor of Pathology in the Department of Nutrition.

PAUL GOLDBABER, D.D.S., Associate Professor of Periodontology, and Tutor in Dental Science.

BYRON H. WAKSMAN, M.D., Assistant Professor of Bacteriology and Immunology at the Massachusetts General Hospital.

ELKAN R. BLOUT, PH.D., Lecturer on Biophysics.

CAROLYN COHEN, PH.D., Research Associate in Biological Chemistry.

SHOU-CHENG J. FU, PH.D., Research Associate in Biological Chemistry.

LEWIS T. MANN, JR., Research Associate in Biological Chemistry.

MERVYN ISRAEL, PH.D., Assistant in Biological Chemistry.

MEDICAL SCHOOL

REQUIRED COURSE

PATHOLOGY A. *Second Year.* — The second year course in pathology is planned as a systematic survey of pathology. It consists of lectures, laboratory study of pathologic histology and demonstrations of gross pathologic material, partly from fixed specimens drawn from the Warren Museum, but more extensively from demonstrations of fresh autopsy and surgical material brought from the laboratories of the affiliated hospitals. Students visit the Pathology Laboratories of the Boston City Hospital, Massachusetts General Hospital, Peter Bent Brigham Hospital, Children's Hospital, Beth Israel Hospital, the Free Hospital for Women, the New England Deaconess Hospital, Boston Lying-in Hospital and the South Huntington Avenue Veterans Hospital, for participation in performance of autopsies.

Lectures are given three days in the week by the staff. The course is divided roughly, though not sharply, into general and special pathology, covering in the first part of the year basic pathologic processes, such as tissue injury and repair, inflammation, tissue responses to specific infectious agents and neoplasia. Owing to the revision of the second year curriculum, special pathology is now integrated with the other second year courses and designated as "Pathologic Physiology." Seven organs or systems will be thus considered during the present academic year: hematopoietic system, kidney, cardiovascular system, respiratory system, gastro-intestinal system, endocrine system and nervous system. The pathology of the eye, skin, oral cavity and vitamin deficiencies are covered in collaboration with other departments of the University.

Courses in parasitology and neuropathology are given separately by the Department of Tropical Public Health of the Harvard School of Public Health and the Department of Neurology and Psychiatry, respectively, but under the nominal jurisdiction of this Department. The course in clinical pathology is under the direction of the Department of Medicine and is part of the integrated course "Pathologic Physiology."

SECOND YEAR

HOURS

Lectures, Dr. HERTIG and Associates.

Laboratory work. Dr. HERTIG and Associates.

331

HARVARD UNIVERSITY

FOURTH YEAR ELECTIVE COURSES

1. Advanced Pathology. Dr. CASTLEMAN. M.G.H. Whole course, all day.
2. Advanced Pathology. Dr. G. K. MALLORY, B.C.H. Whole course, all day.
3. Advanced Pathology. Dr. DAMMIN, P.B.B.H. Whole course, all day.
4. The Pathology of the Endocrine Diseases. Dr. S. WARREN. N.E.D.H. Whole course, all day.
5. The Pathology of Tumors. Dr. S. WARREN. N.E.D.H. Whole course, all day.
6. Advanced Pathology. Dr. FARBER. C.H. Whole course, all day.
7. Advanced Pathology. Dr. FREIMAN. B.I.H. Whole course, all day.
8. The Pathology of Obstetrics. Dr. J. M. CRAIG. B.L.I.H. Whole course, all day.
9. The Pathology of Gynecology. Dr. J. M. Craig. F.H.W. Whole course, all day.

Tropical Public Health

This course is given by members of the Faculty of the Harvard School of Public Health.

THOMAS H. WELLER, M.D., LL.D., Richard Pearson Strong Professor of Tropical Public Health, and Head of the Department.

FRANKLIN A. NEVA, M.D., Associate Professor of Tropical Public Health.

ELI CHERNIN, S.D., Assistant Professor of Tropical Public Health.

THOMAS E. FROTHINGHAM, M.D., Assistant Professor of Tropical Health.

EDWARD H. MICHELSON, PH.D., Associate in Tropical Public Health.

CHIA-TUNG PAN, M.D., M.P.H., Associate in Tropical Public Health.

ANDREW SPIELMAN, PH.D., Instructor in Tropical Public Health.

MEDICAL SCHOOL

REQUIRED COURSE

PARASITOLOGY A. *Second Year.*—The important helminth and protozoan parasites of man are considered with reference to their geographic distribution, identification, mode of transmission, pathogenesis, immune reactions and methods for prevention and control. Clinical aspects and chemotherapy of parasitic diseases are discussed. Emphasis is given to methods of laboratory diagnosis.

SECOND YEAR

HOURS

Lectures, demonstrations, and laboratory work. Dr. WELLER and Staff. Monday mornings and Friday afternoons, .
February and March. 30

VOLUNTARY COURSES

Courses offered by the Department of Tropical Public Health in the School of Public Health are open, as electives, to third and fourth year students. The research facilities of the Department are available for elective work by qualified students, and opportunities for experience in tropical areas may be arranged.

Pharmacology

OTTO KRAYER, M.D., A.M. (hon.), M.D. (hon.), Charles Wilder Professor of Pharmacology, and Head of the Department.

STEPHEN W. KUFFLER, M.D., A.M. (hon.), Professor of Neurophysiology and Neuropharmacology.

PETER B. DEWS, M.B., CH.B., PH.D., A.M. (hon.), Associate Professor of Pharmacology.

PAUL L. MUNSON, PH.D., Associate Professor of Pharmacology in the School of Dental Medicine.

DAVID H. HUBEL, M.D., Assistant Professor of Neurophysiology and Neuropharmacology.

OLEG JARDETZKY, M.D., PH.D., Assistant Professor of Pharmacology.

MARTIN LUBIN, M.D., PH.D., Assistant Professor of Pharmacology.

HARVARD UNIVERSITY

JEAN M. MARSHALL, PH.D., Assistant Professor of Pharmacology.
ULLRICH G. TRENDLENBURG, M.D., PH.D., Assistant Professor of Pharmacology.

FREDERICK C. UHLE, PH.D., Assistant Professor of Chemistry in the Department of Pharmacology.

NORMAN WEINER, M.D., Assistant Professor of Pharmacology (on leave August 1, 1961 through June 30, 1962).

TORSTEN N. WIESEL, M.D., Assistant Professor of Neurophysiology and Neuropharmacology.

JOHN R. BLINKS, M.D., Associate in Pharmacology, and Tutor in Medical Science.

WERNER E. FLACKE, M.D., Associate in Pharmacology.

EDWIN J. FURSHPAN, PH.D., Associate in Neurophysiology and Neuropharmacology.

PHILIP F. HIRSCH, PH.D., Associate in Pharmacology in the School of Dental Medicine.

WILLIAM H. MORSE, PH.D., Associate in Psychology in the Department of Pharmacology.

DAVID D. POTTER, PH.D., Associate in Neurophysiology and Neuropharmacology.

HERBERT WELLS, D.M.D., Associate in Pharmacology in the School of Dental Medicine.

ROBERT B. BOSLER, Research Associate in Neurophysiology and Neuropharmacology.

FRANK A. HOWARD, M.D., Research Associate in Pharmacology, and Tutor in Medical Science.

ROGER T. KELLEHER, PH.D., Research Associate in Psychology in the Department of Pharmacology (from September 1, 1961).

ROBERT KILPATRICK, M.B., CH.B., Research Associate in Pharmacology in the School of Dental Medicine (from August 1, 1961).

JOHANNES SCHMIER, M.D., Research Associate in Pharmacology.

WALTER R. BURACK, M.D., Instructor in Pharmacology, and Tutor in Medical Science.

PAUL R. DRASKOCZY, M.D., Instructor in Pharmacology.

HERBERT L. ENNIS, PH.D., Instructor in Pharmacology.

MEDICAL SCHOOL

EDWARD A. KRAVITZ, PH.D., Instructor in Neurophysiology and Neuropharmacology.

HUGHES J. P. RYSER, M.D., Instructor in Pharmacology.

MILTON H. ALPER, M.D., Research Fellow in Pharmacology (appointment expired December 31, 1961).

RICHARD J. CROUT, M.D., Research Fellow in Pharmacology (from September 1, 1961).

JACK DIAMOND, PH.D., Research Fellow in Neurophysiology and Neuropharmacology.

JAMES J. FISCHER, M.D., Research Fellow in Pharmacology (appointment expired September 15, 1962).

BERNARDINO (ALONSO DE LA SIERRA) GOMEZ, M.D., Research Fellow in Pharmacology (resigned September 15, 1961).

HERSHEL JICK, M.D., Research Fellow in Pharmacology.

GORDON R. JULIAN, PH.D., Research Fellow in Pharmacology.

DAVID H. KESSEL, PH.D., Research Fellow in Pharmacology.

JAN KOCH-WESER, M.D., Research Fellow in Pharmacology.

WILLIAM A. MAHON, M.D. (Equiv.), Research Fellow in Pharmacology.

MAURICE L. MASHFORD, M.B., B.S., Research Fellow in Pharmacology.

HORACE M. MAZZONE, PH.D., Research Fellow in Pharmacology (resigned August 31, 1961).

ANTONIO J. MUSKUS, DOCTOR EN FARMACIA, Research Fellow in Pharmacology.

PETER PAPPAS, PH.D., Research Fellow in Pharmacology.

TAI-CHAN PENG, M.D., Research Fellow in Pharmacology in the School of Dental Medicine.

NICO M. VAN GELDER, PH.D., Research Fellow in Neurophysiology and Neuropharmacology.

MARCUS B. WALLER, PH.D., Research Fellow in Pharmacology.

REQUIRED COURSE

PHARMACOLOGY A. *Second Year.*— The course in Pharmacology consists of lectures, demonstrations, experimental laboratory exercises

HARVARD UNIVERSITY

and conferences. Concepts of general importance in pharmacology and toxicology are presented and the opportunity is provided for students to become acquainted with important drugs. Emphasis is placed on those actions of pharmacological agents which help in understanding the disordered physiology of disease and which are of importance in the rational treatment of disease. The mode of action of important drugs is discussed. In the laboratory, the student is able to become acquainted at first hand with some of the experimental facts, obtained from studies on man and animals, which provide the starting points for the analysis of pharmacological effects.

SECOND YEAR

HOURS

Lectures. Dr. KRAYER and Associates. *One hour, three times a week: Tuesday, Thursday and Saturday mornings, first half-year. Members of the staff of the Department of Pharmacology will continue the teaching of Pharmacology in collaboration with other departments in the integrated program of the second half-year.*

Laboratory work and conferences. Dr. KRAYER and Associates. *Tuesday mornings, first half-year. Further exercises in Pharmacology will be conducted as part of the integrated program of the second half-year.*

146

ELECTIVE AND VOLUNTARY COURSES

20. Pharmacological Investigation on:

Cardiovascular system. Drs. KRAYER and BLINKS.

Endocrinology. Drs. MUNSON and HIRSCH.

Behavior. Drs. DEWS, MORSE and KELLEHER.

Molecular biology. Dr. JARDETZKY.

Bacterial and mammalian cells. Dr. LUBIN.

Autonomic ganglia. Dr. TRENDLENBURG.

Metabolism of tissue amines. Dr. WEINER.

Salivary glands. Dr. WELLS.

21. Structural and synthetic studies on steroid and indole alkaloids. Dr. UHLE.

MEDICAL SCHOOL

Legal Medicine

RICHARD FORD, M.D., Associate Clinical Professor of Legal Medicine, and Head of the Department.

GEORGE W. CURTIS, M.D., Clinical Associate in Pathology.

MICHAEL A. LUONGO, M.D., Clinical Associate in Legal Medicine.

GEORGE G. KATSAS, M.D., Research Associate in Legal Medicine.

ALFRED L. MOSELEY, A.M., Research Associate in Legal Medicine.

ROGER P. STOKEY, LL.B., Research Associate in Legal Medicine.

ELVERA J. ALGERI, S.B., Assistant in Legal Medicine.

MURRAY BURNSTEIN, B.S., Assistant in Legal Medicine.

EPHRAIM FRIEDMAN, M.D., Assistant in Legal Medicine.

ARTHUR F. MARCH, JR., S.B., O.D., Assistant in Legal Medicine.

RAYMOND J. MARTEL, A.M., Assistant in Legal Medicine (appointment expired August 31, 1961).

ARTHUR J. MCBAY, PH.D., Assistant in Legal Medicine.

MURRAY D. SEGAL, S.B., Assistant in Legal Medicine.

FRANK C. STRATTON, S.B., Assistant in Legal Medicine.

JAMES C. TUNNY, JR., S.B., Assistant in Legal Medicine.

EDWIN V. HILL, M.D., Research Fellow in Legal Medicine.

Affiliated:

LEONARD ATKINS, M.D., Instructor in Pathology.

JACK R. EWALT, M.D., A.M. (hon.), Professor of Psychiatry.

REQUIRED COURSE

Third Year.—Twelve lectures. The circumstances in which medical evidence is essential to the administration of justice. Mechanisms and pathological characteristics of injuries most frequently responsible for litigation. Laws and legal principles relating to the practice of medicine and to the physician-patient relationship.

THIRD YEAR

HOURS

Lectures. Dr. FORD and Associates. H.M.S. *Twelve Fridays of the first half-year, at 4.15 P.M.*

12

HARVARD UNIVERSITY

Medicine

WALTER BAUER, M.D., A.M. (hon.), Jackson Professor of Clinical Medicine, and Head of the Department at the Massachusetts General Hospital.

HERRMAN L. BLUMGART, M.D., Professor of Medicine, and Head of the Department at the Beth Israel Hospital.

WILLIAM B. CASTLE, M.D., S.M. (hon.), M.D. (hon.), S.D. (hon.), George Richards Minot Professor of Medicine, and Head of the Department at the Boston City Hospital.

GEORGE W. THORN, M.D., M.A. (hon.), LL.D. (hon.), Sc.D. (hon.), DR. OF MED. (hon.), Hersey Professor of the Theory and Practice of Physic, and Head of the Department at the Peter Bent Brigham Hospital.

PAUL C. ZAMECNIK, M.D., Collis P. Huntington Professor of Oncologic Medicine, Director of the J. Collins Warren Laboratories of the Huntington Memorial Hospital, and Chairman of the Executive Committee of the Departments of Medicine (on leave September 1, 1961–August 31, 1962).

LEWIS DEXTER, M.D., Clinical Professor of Medicine, and Tutor in Medicine.

BENJAMIN ALEXANDER, M.D., Associate Professor of Medicine at the Beth Israel Hospital.

EDWARD F. BLAND, M.D., Associate Clinical Professor of Medicine.

CHARLES S. DAVIDSON, M.D., C.M., A.M. (hon.), Associate Professor of Medicine.

LAURENCE B. ELLIS, M.D., Associate Clinical Professor of Medicine.

KENDALL EMERSON, JR., M.D., Associate Clinical Professor of Medicine.

EUGENE C. EPPINGER, M.D., Associate Clinical Professor of Medicine, and Assistant Dean of the Faculty of Medicine for Courses for Graduates.

MAXWELL FINLAND, M.D., Associate Professor of Medicine.

MEDICAL SCHOOL

- A. STONE FREEDBERG, M.D., Associate Professor of Medicine at the Beth Israel Hospital.
- SAMUEL L. GARGILL, M.D., Associate Clinical Professor of Medicine.
- SEYMOUR J. GRAY, M.D., PH.D., Associate Clinical Professor of Medicine.
- ALEXANDER LEAF, M.D., Associate Professor of Medicine at the Massachusetts General Hospital.
- JOHN B. STANBURY, M.D., Associate Clinical Professor of Medicine.
- BERT L. VALLEE, M.D., A.M. (hon.), Associate Professor of Medicine.
- THOMAS A. WARTHIN, M.D., Associate Clinical Professor of Medicine.
- LOUIS WOLFF, M.D., Associate Clinical Professor of Medicine.
- LOUIS ZETZEL, M.D., Associate Clinical Professor of Medicine.
- PAUL M. ZOLL, M.D., Associate Clinical Professor of Medicine.
- WALTER H. ABELMANN, M.D., Assistant Professor of Medicine.
- MARK D. ALTSCHULE, M.D., Assistant Clinical Professor of Medicine.
- THEODORE L. BADGER, M.D., Assistant Clinical Professor of Medicine.
- ANTHONY F. BARTHOLOMAY, M.A., S.D., Assistant Professor of Mathematical Biology in the Department of Medicine, and Tutor in Mathematical Biology.
- WILLIAM S. BECK, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- FREDERICK S. BIGELOW, M.D., Assistant Professor of Medicine.
- EVAN CALKINS, M.D., Assistant Professor of Medicine (resigned August 31, 1961)
- THOMAS C. CHALMERS, JR., M.D., Assistant Clinical Professor of Medicine (resigned December 31, 1961).
- EARLE M. CHAPMAN, M.D., Assistant Clinical Professor of Medicine.
- HARRY A. DEROW, M.D., Assistant Clinical Professor of Medicine.
- NORBERT FREINKEL, M.D., Assistant Professor of Medicine.

HARVARD UNIVERSITY

DALE G. FRIEND, M.D., Assistant Professor of Medicine at the Peter Bent Brigham Hospital.

FRANK H. GARDNER, M.D., Assistant Professor of Medicine at the Peter Bent Brigham Hospital.

RICHARD GORLIN, M.D., Assistant Professor of Medicine.

JEROME GROSS, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

MILTON W. HAMOLSKY, M.D., Assistant Professor of Medicine (on leave August 15, 1961 through August 14, 1962).

HOWARD H. HIATT, M.D., Assistant Professor of Medicine, and Tutor in Medical Science.

DAVID HURWITZ, M.D., Assistant Clinical Professor of Medicine.

SIDNEY H. INGBAR, M.D., Assistant Professor of Medicine.

KURT J. ISSELBACHER, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

JAMES H. JANDL, M.D., Assistant Professor of Medicine, and Francis Weld Peabody Fellow in Medicine.

GEORGE S. KURLAND, M.D., Assistant Clinical Professor of Medicine.

ALFRED KRANES, M.D., Assistant Clinical Professor of Medicine.

JACOB LERMAN, M.D., Assistant Clinical Professor of Medicine.

HAROLD D. LEVINE, M.D., Assistant Clinical Professor of Medicine.

ARTHUR J. LINENTHAL, M.D., Assistant Clinical Professor of Medicine.

ROBERT B. LOFTFIELD, PH.D., Assistant Professor of Organic Chemistry in the Department of Medicine at the Massachusetts General Hospital.

FRANCIS C. LOWELL, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

JANET W. MCARTHUR, M.D., Assistant Clinical Professor of Medicine.

ALEXANDER MARBLE, M.D., Assistant Clinical Professor of Medicine.

JOHN P. MERRILL, M.D., Assistant Professor of Medicine at the Peter Bent Brigham Hospital.

MEDICAL SCHOOL

GEORGE NICHOLS, JR., M.D., Assistant Professor of Medicine, and Assistant Dean of the Faculty of Medicine for Curricular Affairs.

ALBERT E. RENOLD, M.D., Assistant Professor of Medicine.

JOSEPH E. F. RISEMAN, M.D., Assistant Clinical Professor of Medicine.

MARIAN W. ROPES, M.D., Assistant Clinical Professor of Medicine.

RUDI SCHMID, M.D., PH.D., Assistant Professor of Medicine.

CHARLES L. SHORT, M.D., Assistant Clinical Professor of Medicine.

LLOYD H. SMITH, JR., M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

RICHARD P. STETSON, M.D., Assistant Clinical Professor of Medicine.

PHILIP TROEN, M.D., Assistant Professor of Medicine.

ARTHUR L. WATKINS, M.D., Assistant Clinical Professor of Medicine.

STANFORD WESSLER, M.D., Assistant Professor of Medicine at the Beth Israel Hospital.

HARRIET L. HARDY, M.D., Lecturer on Medicine.

ALAN C. AISENBERG, M.D., PH.D., Associate in Medicine at the Massachusetts General Hospital.

GEORGE E. ALTMAN, M.D., Clinical Associate in Medicine.

C. CABELL BAILEY, M.D., Clinical Associate in Medicine.

MYLES P. BAKER, M.D., Clinical Associate in Medicine.

WILLIAM H. BAKER, M.D., Clinical Associate in Medicine.

BENJAMIN M. BANKS, M.D., Clinical Associate in Medicine.

THEODORE B. BAYLES, M.D., Clinical Associate in Medicine.

SAMUEL B. BEASER, M.D., Clinical Associate in Medicine.

RICHARD A. BLOOMFIELD, M.D., Clinical Associate in Medicine.

NANCY L. R. BUCHER, M.D., Clinical Associate in Medicine.

GEORGE F. CAHILL, JR., M.D., Associate in Medicine, and Tutor in Medical Science.

PERRY J. CULVER, M.D., Clinical Associate in Medicine, and Assistant Dean of the Faculty of Medicine for Admission.

ALBERT I. C. DEFRIEZ, M.D., Clinical Associate in Medicine.

HARVARD UNIVERSITY

RICHARD A. FIELD, M.D., Associate in Medicine at the Massachusetts General Hospital.

ANNE P. FORBES, M.D., Clinical Associate in Medicine.

PAUL FREMONT-SMITH, M.D., Clinical Associate in Medicine.

JOSEPH W. GARDELLA, M.D., Clinical Associate in Medicine, and Assistant Dean of the Faculty of Medicine for Student Affairs.

JOHN G. GIBSON, 2D, M.D., Associate in Medicine at the Peter Bent Brigham Hospital.

WALTER T. GOODALE, M.D., Clinical Associate in Medicine.

WARREN R. GUILD, M.D., Associate in Medicine at the Peter Bent Brigham Hospital.

FREDERICK T. HATCH, M.D., Associate in Medicine at the Massachusetts General Hospital.

VICTOR D. HERBERT, M.D., Associate in Medicine, and Tutor in Medical Science.

ROGER B. HICKLER, M.D., Associate in Medicine.

FREDERIC L. HOCH, M.D., Associate in Medicine, and Tutor in Medical Science.

JOHN H. KNOWLES, M.D., Associate in Medicine at the Massachusetts General Hospital.

STEPHEN M. KRANE, M.D., Associate in Medicine at the Massachusetts General Hospital.

JOHN W. LITTLEFIELD, M.D., Associate in Medicine at the Massachusetts General Hospital.

DAVID LITTMANN, M.D., Clinical Associate in Medicine.

DUDLEY MERRILL, M.D., Clinical Associate in Medicine.

ROBERT T. MONROE, M.D., Clinical Associate in Medicine.

GORDON S. MYERS, M.D., Associate in Medicine at the Massachusetts General Hospital.

LIBERTO P. PECHET, M.D., Associate in Medicine at the Beth Israel Hospital.

MAURICE M. PECHET, PH.D., M.D., Associate in Medicine at the Massachusetts General Hospital.

CURTIS PROUT, M.D., Clinical Associate in Medicine (from October 1, 1961).

MEDICAL SCHOOL

- HERBERT A. RAVIN, M.D., Associate in Medicine.
- KARL SCHMID, PH.D., Associate in Physical Chemistry in the Department of Medicine at the Massachusetts General Hospital.
- ALBERT O. SEELER, M.D., Clinical Associate in Medicine.
- HERBERT A. SELENKOW, M.D., Clinical Associate in Medicine, and Tutor in Medical Science.
- WILLIAM J. SHRIBER, M.D., Clinical Associate in Medicine.
- SAMUEL STEARNS, M.D., Clinical Associate in Medicine.
- J. SYDNEY STILLMAN, JR., M.D., Clinical Associate in Medicine.
- JOHN D. STOECKLE, M.D., Associate in Medicine at the Massachusetts General Hospital.
- GEORGE P. STURGIS, M.D., Clinical Associate in Medicine.
- MELVIN I. STURNICK, M.D., Clinical Associate in Medicine.
- MORTON N. SWARTZ, M.D., Associate in Medicine at the Massachusetts General Hospital.
- WILLIAM A. TISDALE, M.D., Associate in Medicine at the Massachusetts General Hospital (resigned August 31, 1961).
- JAMES L. TULLIS, M.D., Clinical Associate in Medicine.
- WARREN E. C. WACKER, M.D., Associate in Medicine.
- ROE E. WELLS, JR., M.D., Associate in Medicine.
- NORMAN ZAMCHECK, M.D., Clinical Associate in Medicine.
- HUGH R. BUTT, M.D., Visiting Lecturer on Medicine (November 13–November 18, 1961).
- W. STANLEY PEART, M.D., Visiting Lecturer on Medicine, Harvard Medical School; Physician-in-chief *Pro Tempora*, Peter Bent Brigham Hospital (January 7 through January 12, 1962).
- THOMAS C. CHALMERS, JR., M.D., Lecturer on Medicine (from January 1, 1962).
- CLARK W. HEATH, M.D., Lecturer on Medicine.
- MAURICE B. STRAUSS, M.D., Lecturer on Medicine.
- DAVID W. ALLAN, M.D., Research Associate in Medicine.
- SAUL ARONOW, PH.D., Research Associate in Medicine.
- TADEUSZ B. BOJARSKI, PH.D., Research Associate in Medicine.
- THOMAS A. BORGESE, PH.D., Research Associate in Medicine.
- GORDON L. BROWNELL, PH.D., Research Associate in Medicine.

HARVARD UNIVERSITY

RAFAEL CAMERINI (DAVALOS), M.D., DR.P.H., Research Associate in Medicine (appointment expired September 30, 1961).

JACOB DEGRAEFF, M.D., Research Associate in Medicine (resigned September 30, 1961).

ARACELI M. ENGEL, PH.D., Research Associate in Medicine.

EDNA M. FOLLENSBY, PH.D., Research Associate in Medicine.

KEIICHIRO FUWA, PH.D., Research Associate in Medicine.

JOHN GERGELY, PH.D., M.D., Research Associate in Medicine.

JOHN G. HARTER, M.D., Research Associate in Medicine.

FLORENCE W. HAYNES, PH.D., Research Associate in Medicine.

MARIO A. INCHIOSA, JR., PH.D., Research Associate in Medicine.

BARBARA W. KALCKAR, PH.D., Research Associate in Bacteriology and Immunology in the Department of Medicine (from September 1, 1961).

SHELBY KASHKET, PH.D., Research Associate in Medicine.

MITSUKO T. LAFORET, M.D., Research Associate in Medicine.

MARVIN R. LAMBORG, PH.D., Research Associate in Medicine.

SAUL MALKIEL, PH.D., Research Associate in Medicine.

THOMAS J. McMANUS, M.D., Research Associate in Medicine (resigned August 31, 1961).

DAVID G. NATHAN, M.D., Research Associate in Medicine.

LEONA R. NORMAN, M.D., Research Associate in Medicine.

PETER OFNER, PH.D., Research Associate in Medicine.

DONALD E. OKEN, M.D., Research Associate in Medicine.

ERNEST PAGE, M.D., Research Associate in Medicine (July 1-September 30, 1961).

JOHN E. PETERSON, M.D., Research Associate in Medicine (appointment expired August 31, 1961).

LILLIAN POTHIER, M.D., Research Associate in Medicine (from August 1, 1961).

OLE J. RAFAELSEN, M.D., Research Associate in Medicine.

STANLEY M. REIMER, PH.D., Research Associate in Medicine.

FRANZ G. SCHLESINGER, M.D., Research Associate in Medicine (appointment expired December 31, 1961).

MARY J. SPIRO, PH.D., Research Associate in Medicine.

ROBERT G. SPIRO, M.D., Research Associate in Medicine.

MEDICAL SCHOOL

- MARY L. STEPHENSON, PH.D., Research Associate in Medicine.
ANNE M. STOFFYN, PH.D., Research Associate in Medicine.
VERNON K. VANCE, M.D., Research Associate in Medicine (resigned August 31, 1961).
ROBERT S. WALKER, M.D., Research Associate in Medicine (from October 1, 1961).
HELENA WONG, M.D., Research Associate in Medicine.
IRVING P. ACKERMAN, M.D., Instructor in Medicine.
FRANK K. AUSTEN, M.D., Instructor in Medicine (effective January 1, 1962).
VICTOR G. BALBONI, M.D., Instructor in Medicine.
WILLIAM H. BATCHELOR, M.D., Instructor in Medicine.
EDGAR D. BELL, JR., M.D., Instructor in Medicine.
PATRICIA H. BENEDICT, M.D., Instructor in Medicine.
DANIEL S. BERNSTEIN, M.D., Instructor in Medicine.
JOHN F. BERTLES, M.D., Instructor in Medicine.
KENNETH T. BIRD, M.D., Instructor in Medicine.
MORTON G. BROWN, M.D., Instructor in Medicine.
ROBERT E. BROWNEE, M.D., Instructor in Medicine.
JOHN B. CADIGAN, JR., M.D., Instructor in Medicine.
EDMUND J. CALLAHAN, 3RD, M.D., Instructor in Medicine.
WALTER H. CASKEY, M.D., Instructor in Medicine.
JOHN W. CASS, JR., PH.D., M.D., Instructor in Medicine.
PHIN COHEN, M.D., Instructor in Medicine.
AUGUSTUS T. CROCKER, M.D., Instructor in Medicine.
SETH C. CROCKER, M.D., Instructor in Medicine.
LEONARD W. CRONKHITE, JR., M.D., Instructor in Medicine (on leave November 1, 1961 through June 30, 1962).
JAMES F. CUMMINS, M.D., Instructor in Medicine.
WILLARD DALRYMPLE, M.D., Instructor in Medicine (resigned August 31, 1961).
BRIANT L. DECKER, M.D., Instructor in Medicine.
LESLIE J. DEGROOT, M.D., Instructor in Medicine.
ELLIS DRESNER, M.D., Instructor in Medicine.
DANIEL S. ELLIS, M.D., Instructor in Medicine.
DANIEL D. FEDERMAN, M.D., Instructor in Medicine.

HARVARD UNIVERSITY

JAMES J. FEENEY, M.D., Instructor in Medicine.
JEROME W. FISCHBEIN, M.D., Instructor in Medicine.
GERALD S. FOSTER, M.D., Instructor in Medicine.
WILLIAM FRANKLIN, M.D., Instructor in Medicine.
HOWARD S. FRAZIER, PH.D., M.D., Instructor in Medicine.
ALLAN L. FRIEDLICH, M.D., Instructor in Medicine.
JOHN R. GRAHAM, M.D., Instructor in Medicine.
MORTIMER S. GREENBERG, M.D., Instructor in Medicine.
JOSEPH S. GRYBOSKI, M.D., Instructor in Medicine.
VICTOR GUREWICH, M.D., Instructor in Medicine.
THOMAS C. HALL, M.D., Instructor in Medicine.
REED HARWOOD, M.D., Instructor in Medicine.
DONALD M. HASKINS, M.D., Instructor in Medicine.
ROBERT B. HOLDEN, M.D., Instructor in Medicine.
JAMES H. JACKSON, M.D., Instructor in Medicine.
BERNARD M. JACOBSON, M.D., Instructor in Medicine.
H. WALTER JONES, JR., M.D., Instructor in Medicine.
ROBERT H. JONES, M.D., Instructor in Medicine.
ALAN L. KAITZ, M.D., Instructor in Medicine.
RITA M. KELLEY, M.P.H., M.D., Instructor in Medicine.
MELVIN I. KLAYMAN, M.D., Instructor in Medicine.
ALLAN KLIMAN, M.D., Instructor in Medicine.
JULIUS KRITZMAN, M.D., Instructor in Medicine.
MARK F. LESSES, M.D., Instructor in Medicine.
CHARLES S. LIEBER, M.D., Instructor in Medicine.
INGA LINDGREN, M.D., Instructor in Medicine.
ARTHUR J. LOCKHART, M.D., Instructor in Medicine.
JASON E. LUCAS, D.M.D., M.D., Instructor in Medicine.
GEORGE W. LYNCH, M.D., Instructor in Medicine.
JAMES S. MANSFIELD, M.D., Instructor in Medicine.
L. TILLMAN McDANIEL, M.D., Instructor in Medicine.
WILLIAM F. MCNEELY, M.D., Instructor in Medicine.
JOSEPH M. MILLER, M.D., Instructor in Medicine.
JOHN A. MILLS, M.D., Instructor in Medicine.
AVARD M. MITCHELL, PH.D., M.D., Instructor in Medicine.
ROBERT S. MORRISON, M.D., Instructor in Medicine.

MEDICAL SCHOOL

- HYMAN L. NATERMAN, M.D., Instructor in Medicine.
JAY D. OSTROW, M.D., Instructor in Medicine.
LOT B. PAGE, M.D., Instructor in Medicine.
CAREY M. PETERS, M.D., Instructor in Medicine.
ARTHUR S. PIER, JR., M.D., Instructor in Medicine.
GEORGE M. PIKE, M.D., Instructor in Medicine.
WALTER W. POINT, 3RD, M.D., Instructor in Medicine.
CURTIS PROUT, M.D., Instructor in Medicine (from July 1 through September 30, 1961).
SEARLE B. REES, M.D., Instructor in Medicine.
WILLIAM A. RICHARDS, M.D., Instructor in Medicine.
ELLIOT L. SAGALL, M.D., Instructor in Medicine.
WALTER T. ST. GOAR, M.D., Instructor in Medicine.
GUILLERMO C. SANCHEZ, M.D., Instructor in Medicine.
ARTHUR A. SASAHARA, M.D., Instructor in Medicine.
GORDON A. SAUNDERS, M.D., Instructor in Medicine.
LAWRENCE SAXON, M.D., Instructor in Medicine.
JOSEPH H. SCHAFFER, M.D., Instructor in Medicine.
JOHN SCHULMAN, JR., M.D., Instructor in Medicine.
NORMAN J. SELVERSTONE, M.D., Instructor in Medicine.
PHILIP J. SNODGRASS, M.D., Instructor in Medicine, and Henry A. and Camillus Christian Fellow in Medicine.
JULIAN G. SNYDER, PH.D., M.D., Instructor in Medicine.
WILLIAM D. SOHIER, JR., M.D., Instructor in Medicine.
NORMAN S. STEARNS, M.D., Instructor in Medicine.
HAROLD J. STEIN, M.D., Instructor in Medicine.
MYRON STEIN, M.D., Instructor in Medicine.
SAMUEL W. STEIN, M.D., Instructor in Medicine.
LESTER A. STEINBERG, M.D., Instructor in Medicine.
LAWRENCE I. STELLAR, M.D., Instructor in Medicine.
ROBERT H. TALKOV, M.D., Instructor in Medicine.
DONALD A. TUCKER, M.D., Instructor in Medicine.
DAVID D. ULMER, M.D., Instructor in Medicine, and Tutor in Medical Science.
JAMES E. C. WALKER, M.D., Instructor in Medicine.
JOHN C. WELLS, JR., M.D., Instructor in Medicine.

HARVARD UNIVERSITY

- OLGA S. WERMER, M.D., Instructor in Medicine.
EDWIN O. WHEELER, M.D., Instructor in Medicine.
CONGER WILLIAMS, M.D., Instructor in Medicine.
BERTRAM M. WINER, M.D., Instructor in Medicine.
RICHARD WOLFF, M.D., Instructor in Medicine.
FRANK K. AUSTEN, M.D., Assistant in Medicine (from July 1 through December 31, 1961).
WILLIAM H. BIRCHARD, M.D., Assistant in Medicine.
ROBERT J. CAREY, M.D., Assistant in Medicine.
MELVIN H. CHALFEN, M.D., Assistant in Medicine.
ROBERT S. COTSEN, M.D., Assistant in Medicine.
ALICE B. CRANDELL, M.D., Assistant in Medicine (from October 1, 1961).
THEODORE C. EICKHOFF, M.D., Assistant in Medicine.
KENNETH FREMONT-SMITH, M.D., Assistant in Medicine.
ARTHUR J. GARCEAU, M.D., Assistant in Medicine.
WARREN M. GOLD, M.D., Assistant in Medicine.
JOEL C. GOLDTHWAIT, M.D., Assistant in Medicine.
KENNETH M. GRAHAM, M.D., Assistant in Medicine.
MICHAEL A. GRAVALLESE, JR., M.D., Assistant in Medicine.
ARTHUR P. HALL, M.D., Assistant in Medicine.
ERNEST A. HIGGINS, JR., Assistant in Medicine.
JOHN W. KELLER, M.D., Assistant in Medicine.
JOSEPH E. MACKIE, M.D., Assistant in Medicine.
FARAHE MALOOF, M.D., Assistant in Medicine.
EDWIN P. MAYNARD, 3RD, M.D., Assistant in Medicine.
CHARLES P. NORTON, M.D., Assistant in Medicine.
WARD A. OLSEN, M.D., Assistant in Medicine.
JEANETTE C. OPSAHL, PH.D., M.D., Assistant in Medicine (resigned October 31, 1961).
DAVID PAINE, M.D., Assistant in Medicine.
CATHERINE J. PEFFER, M.D., Assistant in Medicine.
SHOLEM POSTEL, M.D., Assistant in Medicine.
MUNRO H. PROCTOR, M.D., Assistant in Medicine.
EDWARD S. RENDALL, M.D., Assistant in Medicine.
ROBERT H. RESNICK, M.D., Assistant in Medicine.

MEDICAL SCHOOL

- THOMAS J. RYAN, M.D., Assistant in Medicine.
RICHARD P. SCHERMAN, M.D., Assistant in Medicine.
DAVID L. SINGER, M.D., Assistant in Medicine.
OSCAR E. STAROBIN, M.D., Assistant in Medicine.
BRUCE W. STEINHAUER, M.D., Assistant in Medicine.
ROBERT C. STEWART, M.D., Assistant in Medicine.
EDWARD WOODWARD, JR., M.D., Assistant in Medicine.
AMERICO ABBRUZZESE, M.D., Research Fellow in Medicine.
CARLOS F. ADELARDI, M.D., Research Fellow in Medicine (appointment expired August 31, 1961).
LAWRENCE N. ADLER, M.D., Research Fellow in Medicine.
SIDNEY ALEXANDER, M.D., Research Fellow in Medicine.
ISRAEL S. ALKALAY, M.D., Research Fellow in Medicine.
CARMEN ALONSO, PH.D., Research Fellow in Medicine (effective January 1, 1962).
ELIAS AMADOR, M.D., Research Fellow in Medicine.
JOHN B. ANDERSON, JR., M.D., Research Fellow in Medicine.
ANTON T. APPELS, M.D., Research Fellow in Medicine (resigned November 28, 1961).
RONALD A. ARKY, M.D., Research Fellow in Medicine.
GEORGE P. BAKER, JR., M.D., Research Fellow in Medicine.
RUSSEL M. BARAKAT, M.D., Research Fellow in Medicine.
JOE C. BENNETT, M.D., Research Fellow in Medicine.
PETER L. BERGQUIST, PH.D., Research Fellow in Medicine (from September 1, 1961).
JEAN P. BINETTE, M.D., Research Fellow in Medicine (resigned September 20, 1961).
SHELDON J. BLEICHER, M.D., Research Fellow in Medicine.
JACK BRAUNWALD, M.D., Research Fellow in Medicine.
LEWIS E. BRAVERMAN, M.D., Research Fellow in Medicine.
GUILLERMO P. BRENA, M.D., Research Fellow in Medicine.
CAESAR BRIEFER, JR., M.D., Research Fellow in Medicine.
J. PAUL BURNETT, JR., PH.D., Research Fellow in Medicine (resigned September 30, 1961).
ROBERT O. BURNS, M.D., Research Fellow in Medicine.
GEORGE P. CANELLOS, M.D., Research Fellow in Medicine.

HARVARD UNIVERSITY

- JAMES D. CHERRY, M.D., Research Fellow in Medicine.
OCK S. CHOI, M.D., Research Fellow in Medicine.
JOSEPH E. COLEMAN, M.D., Research Fellow in Medicine.
FERNANDO T. DE M. COLLACO, M.D., Research Fellow in Medicine
(appointment expired December 31, 1961).
ROBERT W. COLMAN, M.D., Research Fellow in Medicine, and
Tutor in Medical Science.
PAUL A. CRABBE, M.D., Research Fellow in Medicine (from Sep-
tember 1, 1961).
RICARDO E. DEELIZALDE, M.D., Research Fellow in Medicine.
WILLY C. J. DELOECKER, M.D., Research Fellow in Medicine.
MONTERRAT DE MIQUEL, PH.D., Research Fellow in Medicine
(effective January 1, 1962).
DAVID L. DIPETRO, PH.D., Research Fellow in Medicine.
DESMOND E. DONOVAN, M.D., Research Fellow in Medicine.
ROBERT DRUYAN, M.D., Research Fellow in Medicine.
MARTIN DUKE, M.D., Research Fellow in Medicine.
HAROLD B. DULL, M.D., Research Fellow in Medicine.
JOHN T. DUNN, M.D., Research Fellow in Medicine.
LAURENCE E. EARLEY, M.D., Research Fellow in Medicine.
WILLIAM H. ELLETT, M.S., Research Fellow in Medicine.
ERIC ENGEL, M.D., Research Fellow in Medicine.
ALVIN ESSIG, M.D., Research Fellow in Medicine.
JOHN R. EVANS, M.D., PH.D., Research Fellow in Medicine.
ROBERT V. FARESE, M.D., Research Fellow in Medicine.
ERNEST E. FEDERICI, M.D., Research Fellow in Medicine.
DERRICK FELIX-DAVIES, M.B., B.S., Research Fellow in Medicine
(resigned July 31, 1961).
MILAN FIALA, M.D., Research Fellow in Medicine.
JOSEPH M. ST.F. FLANAGAN, M.B., CH.B., Research Fellow in
Medicine.
WILLIAM J. FLANIGAN, M.D., Research Fellow in Medicine.
BEN R. FORSYTH, M.D., Research Fellow in Medicine.
THOMAS G. GABUZDA, M.D., Research Fellow in Medicine.
JERZY GAJEWSKI, M.D., Research Fellow in Medicine.
ANTONIO M. GARCIA, M.D., Research Fellow in Medicine.

MEDICAL SCHOOL

- KERSTIN G. C. GEZELIUS, PH.D., Research Fellow in Medicine
(from January 1, 1962).
- JON B. GLAZIER, M.D., Research Fellow in Medicine.
- JACK K. GOLDMAN, M.D., Research Fellow in Medicine.
- GARRY A. GOLDSTEIN, M.D., Research Fellow in Medicine.
- GARETH M. GREEN, M.D., Research Fellow in Medicine.
- HERBERT A. HAESSLER, M.D., Research Fellow in Medicine.
- EDWARD B. HAGER, M.D., Research Fellow in Medicine.
- REGINALD HALL, M.D., Research Fellow in Medicine.
- EARLE "I" HAMMER, M.D., Research Fellow in Medicine.
- LEE W. HENDERSON, M.D., Research Fellow in Medicine.
- ENRIQUE E. HINOJOSA, M.D., Research Fellow in Medicine (resigned December 18, 1961).
- PETER R. HOLT, M.B., B.S., Research Fellow in Medicine (resigned August 31, 1961).
- WILLIAM B. HOOD, JR., M.D., Research Fellow in Medicine.
- RENE E. HUMBEL, M.D., Research Fellow in Medicine.
- JOHN W. HYLAND, M.D., Research Fellow in Medicine.
- HARRY S. JACOB, M.D., Research Fellow in Medicine.
- JØRGEN G. JACOBSEN, M.D., Research Fellow in Medicine.
- DON P. JONES, M.D., Research Fellow in Medicine.
- SIGETOSI KAMIYAMA, M.D., PH.D., Research Fellow in Medicine
(resigned November 19, 1961).
- YUET-WAI KAN, M.B., B.S., Research Fellow in Medicine.
- MANUEL E. KAPLAN, M.D., Research Fellow in Medicine.
- WILLIS R. KEENE, M.D., Research Fellow in Medicine.
- RAJA N. KHURI, M.D., Research Fellow in Medicine (effective January 1, 1962).
- JEAN V. F. KING, PH.D., Research Fellow in Medicine (resigned September 22, 1961).
- JEROME O. KLEIN, M.D., Research Fellow in Medicine.
- NORMAN KRASNOW, M.D., Research Fellow in Medicine.
- CHARLES M. LAPIERE, M.D., Research Fellow in Medicine (from October 1, 1961).
- DAVID P. LAULER, M.D., Research Fellow in Medicine.
- JAMES B. LEE, M.D., Research Fellow in Medicine.

HARVARD UNIVERSITY

- ALBERT M. LERNER, M.D., Research Fellow in Medicine.
ROGER LESTER, M.D., Research Fellow in Medicine.
TING-KAI LI, M.D., Research Fellow in Medicine.
MONTY S. LOSOWSKY, M.B., CH.B., Research Fellow in Medicine.
MYRON LOTZ, M.D., Research Fellow in Medicine.
TECLA O. LOVINA, M.D., Research Fellow in Medicine.
ROBERT H. MCKAY, PH.D., Research Fellow in Medicine.
FRANCIS D. MILLIGAN, M.D., Research Fellow in Medicine.
EDWARD W. MOORE, M.D., Research Fellow in Medicine.
LEONARD A. MOROZ, M.D., Research Fellow in Medicine.
TROELS MUNKER, M.B., CH.B., Research Fellow in Medicine.
YUTAKA NAGAI, PH.D., Research Fellow in Medicine (from November 16, 1961).
SHIGENOBU NAGATAKI, M.D., Research Fellow in Medicine.
LARRY NATHANSON, M.D., Research Fellow in Medicine.
AVRUM M. NOVITCH, M.D., Research Fellow in Medicine.
YOSHIMORI OMOTE, PH.D., Research Fellow in Medicine.
SERGE D ORLOFF, M.D., Research Fellow in Medicine (resigned July 31, 1961).
RENATO PALMA, M.D., Research Fellow in Medicine (from September 1, 1961).
FEVZI S. PAMUKCU, M.D., Research Fellow in Medicine.
FLORA M. PASCASIO, M.D., Research Fellow in Medicine (appointment expired August 31, 1961).
STANISLAW PASYK, M.D., Research Fellow in Medicine (appointment expired November 30, 1961).
VICTOR D. PEREA, M.D., Research Fellow in Medicine.
RICHARD D. PERERA, M.D., Research Fellow in Medicine.
GEORG R. PHILIPPS, M.D., Research Fellow in Medicine.
THOMAS E. PIEMME, M.D., Research Fellow in Medicine.
ROBERT S. PINALS, M.D., Research Fellow in Medicine.
GERALD R. PLOTKIN, M.D., Research Fellow in Medicine.
PHILIP J. PORTER, M.D., Research Fellow in Medicine.
KENNETH G. POTEE, M.D., Research Fellow in Medicine.
MITCHELL T. RABKIN, M.D., Research Fellow in Medicine (appointment expired December 31, 1961).

MEDICAL SCHOOL

- JACK S. REMINGTON, M.D., Research Fellow in Medicine.
JAMES F. RIORDAN, Ph.D., Research Fellow in Medicine.
ELLIS L. ROLETT, M.D., Research Fellow in Medicine.
LEON D. SABATH, M.D., Research Fellow in Medicine.
EMIL SABBAGA, M.D., Research Fellow in Medicine.
ALLAN I. SANDLER, M.D., Research Fellow in Medicine.
MEI SATAKE, M.D., Ph.D., Research Fellow in Medicine (from
September 1, 1961).
ROBERT H. SCHAPIRO, M.D., Research Fellow in Medicine.
STEVEN SCHENKER, M.D., Research Fellow in Medicine.
JOHN R. SENIOR, M.D., Research Fellow in Medicine.
YOSHITAKA SHIMIZU, M.D., Research Fellow in Medicine (from
October 1, 1961).
JEREMIAH E. SILBERT, M.D., Research Fellow in Medicine.
ARTURO M. SINGER, M.D., Research Fellow in Medicine.
CARTER SMITH, JR., M.D., Research Fellow in Medicine.
JOHN S. SOELDNER, M.D., Research Fellow in Medicine.
JURGEN STEINKE, M.D., Research Fellow in Medicine.
PAUL M. STEVENS, M.D., Research Fellow in Medicine.
KATHLEEN STRATTON, Ph.D., Research Fellow in Medicine (from
September 1, 1961).
LOUIS W. SULLIVAN, M.D., Research Fellow in Medicine.
SHIZUKU TAKAHASHI, M.D., Research Fellow in Medicine (from
November 15, 1961).
MARVIN L. TANZER, M.D., Research Fellow in Medicine.
DUNCAN P. THOMAS, M.B., B.S., Research Fellow in Medicine.
KATUHIKO TOKITA, M.D., Ph.D., Research Fellow in Medicine
(from September 1, 1961).
GUILLERMO URRUTIA, M.D., Research Fellow in Medicine.
WEIERT M. VELLE, D.M.V., Research Fellow in Medicine.
JEAN P. VON WARTBURG, M.D., Research Fellow in Medicine
(from November 1, 1961).
JOHN H. WILLIAMS, JR., M.D., Research Fellow in Medicine.
JOHN R. WILLIAMSON, Ph.D., Research Fellow in Medicine (from
September 1, 1961).
THOMAS E. WOERNER, M.D., Research Fellow in Medicine.

HARVARD UNIVERSITY

- CHUAN-TAO YU, PH.D., Research Fellow in Medicine.
PETER M. YURCHAK, M.D., Research Fellow in Medicine.
DANIEL C. ALLENSWORTH, 3RD., M.D., Teaching Fellow in Medicine.
JOHN M. BENNETT, M.D., Teaching Fellow in Medicine.
WILLIAM G. BUSH, M.D., Teaching Fellow in Medicine.
ROMAN W. DESANCTIS, M.D., Teaching Fellow in Medicine.
SHIA H. ELSON, M.D., Teaching Fellow in Medicine.
WILLIAM B. GREENOUGH, 3RD., M.D., Teaching Fellow in Medicine.
MANUEL G. HERRERA-ACENA, M.D., Teaching Fellow in Medicine.
ANDREW HUVOS, M.D., Teaching Fellow in Medicine.
PAUL I. JAGGER, M.D., Teaching Fellow in Medicine.
THOMAS F. O'BRIEN, M.D., Teaching Fellow in Medicine.
BERTRAM PITT, M.D., Teaching Fellow in Medicine.
RICHMOND PRESCOTT, M.D., Teaching Fellow in Medicine.
MITCHELL T. RABKIN, M.D., Teaching Fellow in Medicine (from January 1, 1961).
SIDNEY M. RICHMAN, M.D., Teaching Fellow in Medicine.
GERALD ROSENBLATT, M.D., Teaching Fellow in Medicine.
WALTER RUBIN, M.D., Teaching Fellow in Medicine.
VICTOR W. SIDEL, M.D., Teaching Fellow in Medicine.
CYNTHIA K. SILBERT, M.D., Teaching Fellow in Medicine.
ROBERT B. ULLIAN, M.D., Teaching Fellow in Medicine.
WILLIAM L. GREEN, M.D., William O. Moseley, Jr. Travelling Fellow in Medicine.
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Affiliated:

- NEIL L. CRONE, M.D., Professor of Business Administration, and Director of the Business School Health Service.
DANA L. FARNSWORTH, M.D., Henry K. Oliver Professor of Hygiene, and Director of University Health Services.
HERMAN M. KALCKAR, M.D., PH.D., Professor of Biological Chemistry at the Massachusetts General Hospital.

MEDICAL SCHOOL

LEWIS, L. ENGEL, PH.D., Associate Professor of Biological Chemistry, and Permanent Faculty Fellow of the American Cancer Society.

ROGER W. JEANLOZ, PH.D., Associate Professor of Biological Chemistry at the Massachusetts General Hospital.

EDWARD H. KASS, PH.D., M.D., Associate Professor of Bacteriology and Immunology.

BENEDICT F. MASSELL, M.D., Assistant Clinical Professor of Pediatrics.

SIDNEY V. RIEDER, PH.D., Assistant Professor of Biological Chemistry at the Massachusetts General Hospital.

JESSE F. SCOTT, M.D., Assistant Professor of Anatomy.

EDGAR B. TAFT, M.D., Assistant Professor of Pathology at the Massachusetts General Hospital.

SIDNEY LESKOWITZ, PH.D., Associate in Bacteriology and Immunology at the Massachusetts General Hospital.

W. RICHARD BURACK, M.D., Instructor in Pharmacology, and Tutor in Medical Science.

DONALD G. COMB, M.D., Research Associate in Biological Chemistry.

ANNETTE M. C. RAPIN, PH.D., Research Associate in Biological Chemistry.

WILLIAM J. REDDY, D.Sc., Research Associate in Biological Chemistry.

IRVING WELIKY, PH.D., Research Associate in Biological Chemistry.

STANLEY J. ADELSTEIN, M.D., Philip H. Cook Fellow in Radiology, and Instructor in Anatomy.

NEIL BAGGETT, B.Sc., Research Fellow in Biological Chemistry.

COLIN H. BOLTON, PH.D., Research Fellow in Biological Chemistry.

ANNEMARIE CLOSSE, PH.D., Research Fellow in Biological Chemistry.

HAROLD M. FLOWERS, PH.D., Research Fellow in Biological Chemistry.

HARVARD UNIVERSITY

ANUND HALLEN, M.D., Research Fellow in Biological Chemistry.
LAURI D. THRUPP, M.D., Research Fellow in Bacteriology and Immunology.

REQUIRED COURSES

The time given to the Department of Medicine begins for the entire class in the second half of the second year and continues thereafter so that each student spends about a third of his third year and more than a quarter of his fourth year in the study of medicine, including the medical specialties in the Departments of Neurology, Psychiatry, and Dermatology. The instruction given by the Department of Medicine is by means of lectures, amphitheatre clinics, laboratory exercises and practical work in out-patient departments and wards. Throughout, an effort is made to correlate the clinical aspects of patients with fundamental biologic principles and to establish in the student's mind the importance of care and precision in diagnostic and therapeutic methods as best applied to fellow human beings living in a complex industrial society.

MEDICINE A. *Second Year.* — During the second half of the second year, the Department of Medicine in cooperation with the Departments of Pathology, Pharmacology, Surgery and others participates in the teaching of pathologic physiology. This course provides an integrated approach to understanding the mechanisms of disease and includes intensive instruction in laboratory methods. Accompanying the instruction in pathologic physiology, a course is given in the study of the patient by physical examination and history taking. For this instruction, the students are divided into small groups and assigned to the four general hospitals.

MEDICINE B. *Third Year.* — Throughout the third year the subjects of internal medicine are covered by clinics or lectures for the whole class, which are given at the various hospitals or at the Harvard Medical School. For their practical instruction the students are divided into small groups and work in the medical wards or out-patient departments of the four general hospitals connected with the Medical School. On Monday and Wednesday afternoons the third of the class assigned to Medicine attends amphitheatre clinics, and X-ray conferences in rotation at the various hospitals or does assigned

MEDICAL SCHOOL

reading or clinical work. One week of the course is spent at the Middlesex County Sanatorium for special instruction in tuberculosis and other chest diseases.

MEDICINE C. *Fourth Year.*—In this year for two or three months the students serve mainly as clinical clerks in the medical wards of a general hospital. Part of their time, however, is devoted to acting as assistants in the medical clinic of the out-patient department. Especial emphasis is placed upon the care of the patient as an individual with respect to diagnosis and treatment. With individual variations in the different hospitals, conferences are held for the informal discussion of clinical, pathological, immunological, radiological, social or dietetic problems of selected cases.

FACILITIES FOR INSTRUCTION

The instruction is given at the Medical School, the Beth Israel Hospital, the Boston City Hospital, the Massachusetts General Hospital and the Peter Bent Brigham Hospital, as well as in several other hospitals devoted to special purposes. In these hospitals abundant and varied clinical material is available for the conduct of numerous exercises.

SECOND YEAR

HOURS

Pathologic physiology, including lectures and laboratory exercises. Drs. RENOLD (Chairman), ISSELBACHER, JANDL and other members of the Department of Medicine together with members of the Departments of Pathology, Pharmacology, Surgery, Obstetrics-Gynecology, Pediatrics, Neurology and Psychiatry, Radiology, and Tropical Public Health. 575

Introductory medicine, including lectures and clinical experience. Dr. CHAPMAN (Chairman) and coordinators at the participating hospitals: Dr. WINER at the B.I.H.; Dr. JANDL at the B.C.H.; Dr. KNOWLES at the M.G.H.; and Dr. FRIEND at the P.B.B.H.

Together, these two courses occupy six half-days during the first semester and eight half-days per week during the second semester.

HARVARD UNIVERSITY

THIRD YEAR

HOURS

- Lectures, recitations, and clinics on selected topics in internal medicine. Drs. BAUER, BLUMGART, CASTLE, THORN and Associates. *Throughout the year.* 64
- Exercises in sections are held in the wards and out-patient departments at the general hospitals connected with the Medical School. The coordinator of this instruction is Dr. DAVIDSON. Directly in charge at the B.I.H. is Dr. LINENTHAL; at the B.C.H., Dr. ABELMANN; at the M.G.H., Dr. SMITH; and at the P.B.B.H., Dr. MERRILL. *Each section has thirty-two exercises of three hours each and twenty-one exercises of two hours each.* 143

FOURTH YEAR

- Clinical Clerkships at M.G.H. (Medicine C₁, Dr. BAUER and Associates); B.C.H. (Medicine C₂, Drs. CASTLE, DAVIDSON and Associates); P.B.B.H. (Medicine C₃, Dr. THORN and Associates); B.I.H. (Medicine C₄, Drs. BLUMGART, ALEXANDER, FREEDBERG and Associates). 288

ELECTIVE AND VOLUNTARY COURSES

In addition to the required courses for fourth-year students, the Department offers several opportunities for specially qualified students to take advanced elective courses. Qualified students in their second or third years in free afternoons or in their fourth year during additional months may attend voluntary courses or carry on research problems in internal medicine by arrangements with individual instructors approved by the head of the hospital department.

FOURTH YEAR ELECTIVE COURSES

5. Advanced Medicine. Drs. BAUER, BECK, BIRD, BLAND, ISSELBACHER, KNOWLES, LEAF, SMITH, STANBURY, WATKINS and Associates. M.G.H.

MEDICAL SCHOOL

6. Advanced Medicine. Drs. CASTLE, BADGER, BIGELOW, DAVIDSON, ELLIS, FINLAND, HURWITZ, INGBAR, KASS, SCHMID and Associates. B.C.H.
7. Advanced Medicine. Drs. THORN, DEXTER, GARDNER, GORLIN, GRAY, LEVINE, MERRILL, TYLER, VALLEE, WACKER, WELLS and Associates. P.B.B.H.
8. Advanced Medicine. Drs. BLUMGART, ALEXANDER, FREEDBERG, HIATT, KURLAND, TROEN, ZOLL and Associates. B.I.H.
9. Advanced Medicine. Drs. WARTHIN, LITTMANN and Associates. W.R.V.A.H.
10. Advanced Medicine. Dr. CHALMERS and Associates. L.S.H.
11. Diabetes. Drs. MARBLE, RENOLD and Associates. N.E.D.H.
12. Neoplastic Disease. Drs. ZAMECNIK, CASTLEMAN, CHURCHILL, ROBBINS, G. S. RICHARDSON and Associates. M.G.H.
13. Physical Medicine and Rehabilitation. Dr. WATKINS. M.G.H.
14. Diseases of the Lungs. Dr. BADGER and Associates. M.G.H., B.C.H., P.B.B.H., and C.H.M.C. Will not be offered in 1961-62.
15. Comprehensive Medical Care. Drs. FARNSWORTH, PROUT and Associates. University Health Services of Harvard University and Radcliffe College.

VOLUNTARY COURSES

31. Clinics on Digestive Diseases. Yamins A, B.I.H. Drs. BANKS, ZETZEL and Associates. Thursdays, 2:00-4:00 p.m., February and March. Open to third year students.
37. Diagnosis and Treatment of Heart Disease. Sherman Auditorium, B.I.H. Drs. RISEMAN, ALTSCHULE and SAGALL. Tuesdays, 2:00-4:00 p.m., February and March. Open to third year students.
38. Diagnosis and Treatment of Diabetes Mellitus. Yamins A, B.I.H. Drs. BEASER and STEARNS. Tuesdays and Thursdays, 2:00-3:30 p.m., October. Open to third year students.
39. Electrocardiography. P.B.B.H., Amphitheatre. Dr. H. D. LEVINE. Thursdays, 4:15-5:30 p.m., March and April. Open to third and fourth year students.
43. Diabetes Mellitus. N.E.D.H. Drs. MARBLE, RENOLD and Associates. Tuesdays and Thursdays, 2:00-3:30 p.m., April. Open to second, third and fourth year students.
44. Seminars on the Biology and Biochemistry of Disease. M.G.H.

HARVARD UNIVERSITY

Drs. J. GROSS, R. B. COHEN, K. J. ISSELBACHER, B. H. WAKSMAN, other staff members and outside speakers. Tentative time will be Tuesdays or Wednesdays in February and March. Two-hour seminar for nine weeks. Open to second, third and fourth year students. For further information contact Dr. GROSS.

45. Endocrinology. Sherman Auditorium, B.I.H. Drs. HAMOLSKY, HIATT, and TROEN. Will not be offered in 1961-62.
46. Family Medicine. *See* Pediatrics.

Dermatology

THOMAS B. FITZPATRICK, M.D., PH.D., Edward Wigglesworth
Professor of Dermatology, and Head of the Department.

MICHAEL BIRBECK, A.M., Visiting Professor of Dermatology
(from August 1, 1961).

MAURICE M. TOLMAN, M.D., Clinical Professor of Dermatology.

IRVIN H. BLANK, PH.D., Assistant Professor of Dermatology at
the Massachusetts General Hospital.

RUTH K. FREINKEL, M.D., Associate in Dermatology.

ROBERT D. GRIESEMER, M.D., Associate in Dermatology at the
Massachusetts General Hospital.

GEORGE SZABO, PH.D., Associate in Anatomy in the Department
of Dermatology.

GEORGE F. WILGRAM, M.D., PH.D., Associate in Dermatology
(from December 1, 1961).

WALTER F. LEVER, M.D., Lecturer on Dermatology.

WILLIAM MONTAGNA, PH.D., Visiting Lecturer on Dermatology.

JACOB H. SWARTZ, M.D., Lecturer on Dermatology.

MADHUKAR A. PATHAK, PH.D., Research Associate in Dermatology.

JOHN ADAMS, JR., M.D., Instructor in Dermatology.

PAUL J. CATINELLA, M.D., Instructor in Dermatology.

WILLIAM L. CURWEN, M.D., Instructor in Dermatology.

WILLIAM R. HILL, JR., M.D., Instructor in Dermatology.

PHILIP L. MCCARTHY, M.D., Instructor in Dermatology.

MAKOTO SEIJI, M.D., PH.D., Instructor in Dermatology (resigned
January 31, 1962).

ROBERT F. TILLEY, M.D., Instructor in Dermatology.

MEDICAL SCHOOL

- LEROY D. AARONSON, M.D., Assistant in Dermatology.
JOSEPH ALBERT, M.D., Assistant in Dermatology.
EARL A. GLICKLICH, M.D., Assistant in Dermatology.
MILTON E. HELMAN, M.D., Assistant in Dermatology.
CHARLES S. KEUPER, M.D., Assistant in Dermatology.
MYRON H. MATZ, M.D., Assistant in Dermatology.
SAMUEL L. MOSCHELLA, M.D., Assistant in Dermatology.
ARTHUR S. SPANGLER, M.D., Assistant in Dermatology.
HOWARD P. BADEN, M.D., Research Fellow in Dermatology.
JOSEPH W. BURNETT, M.D., Research Fellow in Dermatology.
IRWIN M. FREEDBERG, M.D., Research Fellow in Dermatology.
ALVIN E. FRIEDMAN-KIEN, M.D., Research Fellow in Dermatology.
RICHARD N. LAMB, M.D., Research Fellow in Dermatology (from
October 16, 1961).
BURNHAM E. LAMKINS, M.D., Research Fellow in Dermatology.
RICHARD MASTERS, M.D., Research Fellow in Dermatology.
A. DAVID MCGUGAN, M.B., CH.B., Research Fellow in Derma-
tology.
KAZUO SHIMAO, PH.D., Research Fellow in Dermatology (ap-
pointment expired August 31, 1961).
HITOSHI TAKAHASHI, M.D., PH.D., Research Fellow in Derma-
tology (from December 1, 1961).
SHING Y. YIP, M.D., Research Fellow in Dermatology (from
March 1, 1962).

REQUIRED COURSE

DERMATOLOGY A. *Third Year*.—Instruction consists of four lectures and a clinical clerkship in the dermatology outpatient clinic and dermatology wards of the Massachusetts General Hospital. The course attempts to provide a basic knowledge of the cytology, biochemistry and physiology of normal skin and the pathologic physiology of various diseases involving the skin.

Physical diagnosis (distribution pattern, configuration and morphology of skin lesions) is illustrated with the aid of color transparencies as well as patients. In addition, the student is instructed in the use of some laboratory aids to diagnosis (mycologic examination, dermal

HARVARD UNIVERSITY

pathology, etc.). Emphasis is placed on recognition of skin diseases and cutaneous manifestations of systemic diseases.

THIRD YEAR

HOURS

Lectures. Dr. FITZPATRICK and Associates. H.M.S. <i>Four lectures.</i>	4
Section work. Clinical Dermatology. Dr. FITZPATRICK and Associates. M.G.H. <i>Each student attends ten or eleven sessions (clinics and ward rounds) of three hours each.</i>	32

FOURTH YEAR ELECTIVE COURSE

1. Clinical Clerkship. Dr. FITZPATRICK and Associates. M.G.H. Whole course, all day, or half-course, mornings, with permission of the head of the department. Limited to two students each month.

Neurology and Psychiatry

RAYMOND D. ADAMS, M.D., A.M. (hon.), Bullard Professor of Neuropathology, and Head of the Department of Neurology at the Massachusetts General Hospital.

DEREK E. DENNY-BROWN, DR. PHIL., M.D., A.M. (hon.), James Jackson Putnam Professor of Neurology, Head of the Department at the Boston City Hospital, and Chairman of the Executive Committee of the Departments of Neurology and Psychiatry.

JACK R. EWALT, M.D., A.M. (hon.), Professor of Psychiatry, and Head of the Department at the Massachusetts Mental Health Center.

ERICH LINDEMANN, PH.D., M.D., A.M. (hon.), Professor of Psychiatry, and Head of the Department at the Massachusetts General Hospital.

GRETE L. BIBRING, M.D., Clinical Professor of Psychiatry.

GEORGE E. GARDNER, PH.D., M.D., Clinical Professor of Psychiatry.

IVES HENDRICK, M.D., Clinical Professor of Psychiatry.

MEDICAL SCHOOL

ELVIN V. SEMRAD, M.D., Clinical Professor of Psychiatry.

HENRY M. FOX, M.D., Associate Clinical Professor of Psychiatry.

MILTON GREENBLATT, M.D., Associate Clinical Professor of Psychiatry.

ALFRED POPE, M.D., Associate Professor of Neuropathology at the McLean Hospital.

ROBERT S. SCHWAB, M.D., Associate Clinical Professor of Neurology.

PHILIP SOLOMON, M.D., Associate Clinical Professor of Psychiatry.

JOHN P. SPIEGEL, M.D., Associate Clinical Professor of Psychiatry.

ALFRED H. STANTON, M.D., A.M. (hon.), Associate Professor of Psychiatry at the McLean Hospital.

PHILIP R. DODGE, M.D., Assistant Professor of Neurology at the Massachusetts General Hospital (from January 1, 1962).

CHARLES M. FISHER, M.D., Assistant Clinical Professor of Neurology.

DANIEL H. FUNKENSTEIN, M.D., Assistant Professor of Psychiatry.

SANFORD R. GIFFORD, JR., M.D., Assistant Clinical Professor of Psychiatry.

DANIEL J. LEVINSON, PH.D., Assistant Professor of Psychology in the Department of Psychiatry.

EDWARD P. RICHARDSON, JR., M.D., Assistant Professor of Neuropathology at the Massachusetts General Hospital.

JAMES D. ROBERTSON, M.D., Assistant Professor of Neuropathology at the McLean Hospital.

GREGORY ROCHLIN, M.D., Assistant Clinical Professor of Psychiatry.

MURRAY SIDMAN, PH.D., Assistant Professor of Psychology in the Department of Neurology at the Massachusetts General Hospital.

RICHARD L. SIDMAN, M.D., Assistant Professor of Neuropathology (from January 1, 1962).

SAMUEL SILVERMAN, M.D., Assistant Clinical Professor of Psychiatry.

LUTFU L. UZMAN, M.D., Assistant Professor of Neurology.

MAURICE VICTOR, M.D., Assistant Clinical Professor of Neurology.

HARVARD UNIVERSITY

AVERY D. WEISMAN, M.D., Assistant Clinical Professor of Psychiatry.

ELIZABETH R. ZETZEL, M.D., Assistant Clinical Professor of Psychiatry.

FRANCIS J. BRACELAND, M.D., Lecturer on Psychiatry.

ERIK H. ERIKSON, Lecturer on Psychiatry.

HAROLD S. ALBERT, M.D., C.M., Clinical Associate in Psychiatry.

BETTY Q. BANKER, M.D., Associate in Neuropathology at The Children's Hospital.

SAMUEL BOJAR, M.D., Clinical Associate in Psychiatry.

MORRIS E. CHAFETZ, M.D., Clinical Associate in Psychiatry.

EDWIN M. COLE, M.D., Clinical Associate in Neurology.

GAYLORD P. COON, M.D., Clinical Associate in Psychiatry.

LYDIA G. DAWES, M.D., Clinical Associate in Psychiatry.

FRANK C. D'ELSEAUX, M.D., Clinical Associate in Psychiatry.

PHILIP R. DODGE, M.D., Associate in Neurology at the Massachusetts General Hospital (from July 1 through December 31, 1961).

THOMAS F. DWYER, M.D., Clinical Associate in Psychiatry.

STANLEY H. ELDRED, M.D., Associate in Psychiatry at the McLean Hospital.

SAMUEL H. EPSTEIN, M.D., Clinical Associate in Neurology.

FRANK R. ERVIN, M.D., Associate in Psychiatry at the Massachusetts General Hospital.

LESTER L. HASENBUSH, M.D., Clinical Associate in Psychiatry.

LESTON L. HAVENS, M.D., Associate in Psychiatry.

SIMON HORENSTEIN, M.D., Associate in Neurology.

PAUL M. HOWARD, M.D., Associate in Psychiatry at the McLean Hospital.

HARRY L. KOZOL, M.D., Clinical Associate in Neurology.

P. HERBERT LEIDERMAN, M.D., Associate in Psychiatry (from September 1, 1961).

OGDEN R. LINDSLEY, PH.D., Associate in Psychology in the Department of Psychiatry.

ALFRED O. LUDWIG, M.D., Clinical Associate in Psychiatry.

MEDICAL SCHOOL

- ELIZABETH S. MAKKAY, M.D., Associate in Psychiatry at The Children's Hospital.
- ROBERT H. MCCARTER, M.D., Clinical Associate in Psychiatry.
- JACK H. MENDELSON, M.D., Associate in Psychiatry at the Massachusetts General Hospital.
- DORIS MENZER-BENARON, M.D., Clinical Associate in Psychiatry.
- JOSEPH J. MICHAELS, M.D., Clinical Associate in Psychiatry.
- WILLIAM F. MURPHY, PH.B., M.D., Clinical Associate in Psychiatry.
- CECIL MUSHATT, M.D., Clinical Associate in Psychiatry.
- DAVID J. MYERSON, M.D., Clinical Associate in Psychiatry.
- JOHN C. NEMIAH, M.D., Associate in Psychiatry and Tutor in Psychiatry.
- MARTIN T. ORNE, M.D., Associate in Psychiatry (from January 1, 1962).
- GARDNER C. QUARTON, M.D., Associate in Psychiatry at the Massachusetts General Hospital.
- BENJAMIN C. RIGGS, M.D., Clinical Associate in Psychiatry.
- FLAVIU C. A. ROMANUL, M.D., Associate in Neurology.
- RICHARD L. SIDMAN, M.D., Associate in Neuropathology at the Massachusetts General Hospital (from July 1 through December 31, 1961).
- JUDY F. ROSENBLITH, PH.D., Associate in Psychology in the Department of Psychiatry at the Massachusetts General Hospital (from October 1, 1961).
- PETER E. SIFNEOS, M.D., Associate in Psychiatry at the Massachusetts General Hospital.
- CHRISTOPHER T. STANDISH, M.D., Clinical Associate in Psychiatry.
- WILLIAM H. TIMBERLAKE, M.D., Clinical Associate in Neurology.
- LAURENCE D. TREVETT, M.D., Clinical Associate in Psychiatry.
- H. RICHARD TYLER, M.D., Associate in Neurology (from January 1, 1962).
- ARTHUR F. VALENSTEIN, M.D., Clinical Associate in Psychiatry.
- HENRY WERMER, M.D., Clinical Associate in Psychiatry.
- PETER H. WOLFF, M.D., Associate in Psychiatry at The Children's Hospital.

HARVARD UNIVERSITY

- LOUIS S. CHASE, M.D., Lecturer on Psychiatry.
- EVEOLEEN N. REXFORD, M.D., Lecturer on Psychiatry.
- NORMAN W. BELL, PH.D., Research Associate in Sociology in the Department of Psychiatry.
- ARNE BRUN, M.D., Research Associate in Neuropathology.
- AYDIN CANKARDAS-WYSOCKI, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- ROSE L. COSER, PH.D., Research Associate in Sociology in the Department of Psychiatry.
- JOHN M. VON FELSINGER, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- HUMBERTO FERNANDEZ-MORAN, M.D., PH.D., Research Associate in Neuropathology.
- MIRIAM F. FIEDLER, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- MARC A. FRIED, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- GEORGE GROSSER, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- DAVID L. GUTMANN, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- ROBERT H. HARRISON, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- HELEN H. HESS, M.D., Research Associate in Neuropathology.
- DOROTHY S. HUNTINGTON, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- DONALD C. KLEIN, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- PHILIP E. KUBZANSKY, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- MARJORIE B. LEES, PH.D., Research Associate in Neuropathology.
- GLORIA F. LEIDERMAN, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- ERIC H. LENNEBERG, PH.D., Research Associate in Psychology in the Department of Psychiatry.

MEDICAL SCHOOL

- ROBERT J. LIFTON, M.D., Research Associate in Psychiatry (resigned August 31, 1961).
- ELLIOT G. MISHLER, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- BENJAMIN J. MURAWSKI, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- ASENATH PETRIE, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- IRENE R. PIERCE, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- JOSEPH C. RHEINGOLD, PH.D., Research Associate in Psychiatry.
- MARGARET R. RICH, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- SHELDON R. ROEN, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- ASCANIO M. ROSSI, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- EDWARD J. RYAN, PH.D., Research Associate in Psychology in the Department of Psychiatry (from August 1, 1961).
- MORRIS S. SCHWARTZ, PH.D., Research Associate in Sociology in the Department of Psychiatry.
- DAVID SHAPIRO, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- LEWIS J. SHERMAN, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- RONALD E. SHOR, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- WILLIAM F. SOSKIN, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- KATHERINE SPENCER, PH.D., Research Associate in Social Anthropology in the Department of Psychiatry.
- MARK SPIVAK, PH.D., Research Associate in Psychology in the Department of Psychiatry (from November 1, 1961).
- GEORGE A. TALLAND, PH.D., Research Associate in Psychology in the Department of Psychiatry.

HARVARD UNIVERSITY

- HENRY WECHSLER, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- JUSTIN L. WEISS, PH.D., Research Associate in Psychology in the Department of Psychiatry.
- JOHN A. ABBOTT, M.D., Instructor in Neurology.
- MYER ASEKOFF, M.D., Instructor in Psychiatry.
- HERBERT BARRY, JR., PH.D., M.D., Instructor in Psychiatry.
- TULLY BENARON, M.D., Instructor in Psychiatry.
- CLEMENS E. BENDA, M.D., Instructor in Psychiatry.
- MARTIN A. BEREZIN, M.D., Instructor in Psychiatry.
- NORMAN R. BERNSTEIN, M.D., Instructor in Psychiatry.
- HOWARD T. BLANE, PH.D., Instructor in Psychology in the Department of Psychiatry.
- JOHN R. BLITZER, M.D., Instructor in Psychiatry.
- FRANCES J. BONNER, M.D., Instructor in Psychiatry.
- BENJAMIN B. BRUSSEL, M.D., Instructor in Psychiatry.
- MARGARET BULLOWA, M.D., Instructor in Psychiatry.
- MANDEL E. COHEN, M.D., Instructor in Neurology.
- RAQUEL E. COHEN, M.P.H., M.D., Instructor in Psychiatry.
- EDWARD M. DANIELS, M.D., Instructor in Psychiatry.
- DANIEL C. DAWES, M.D., Instructor in Psychiatry.
- MAX DAY, M.D., Instructor in Psychiatry.
- FRANCIS L. A. DEMARNEFFE, M.B., B.S., Instructor in Psychiatry.
- PIERRE M. DREYFUS, M.D., Instructor in Neurology.
- ALBERT C. ENGLAND, JR., M.D., Instructor in Neurology.
- ABRAHAM FINESINGER, PH.D., M.D., Instructor in Psychiatry.
- DONALD S. GAIR, M.D., Instructor in Psychiatry.
- PHILLIP H. GATES, M.D., Instructor in Psychiatry.
- BENJAMIN F. GILL, M.D., Instructor in Psychiatry.
- ERIK GLUD, M.D., Instructor in Psychiatry.
- MAX GOLDMAN, M.D., Instructor in Neurology.
- GERTRUDE R. GREENBLATT, M.D., Instructor in Psychiatry.
- THOMAS P. HACKETT, M.D., Instructor in Psychiatry.
- HELEN M. HERZAN, M.D., Instructor in Psychiatry.
- DICK HOEFNAGEL, M.D., Instructor in Neurology.
- RICHMOND HOLDER, M.D., Instructor in Psychiatry.

MEDICAL SCHOOL

- ROBERT W. HYDE, M.D., Instructor in Psychiatry.
RALPH J. KAHANA, M.D., Instructor in Psychiatry.
MERTON J. KAHNE, M.D., Instructor in Psychiatry.
CHARLES A. KANE, M.D., Instructor in Neurology.
STANLEY S. KANTER, M.D., Instructor in Psychiatry.
SAMUEL KAPLAN, M.D., Instructor in Psychiatry.
GERALD L. KLERMAN, M.D., Instructor in Psychiatry.
EDMUND N. KUDARAUSKAS, M.D., Instructor in Psychiatry.
JOHN H. LAMONT, M.D., Instructor in Psychiatry.
JEAN-LOUIS LANGLOIS, M.D., Instructor in Psychiatry.
P. HERBERT LEIDERMAN, M.D., Instructor in Psychiatry (from
July 1 through December 31, 1961).
SIDNEY LEVIN, M.D., Instructor in Psychiatry.
BERNARD LEVINE, PH.D., Instructor in Psychology in the Department of Psychiatry.
SIMEON LOCKE, M.D., Instructor in Neurology.
MARIA LORENZ, M.D., Instructor in Psychiatry.
WALTER MANN, PH.D., M.D., Instructor in Psychiatry.
RICHARD F. MAYER, M.D., Instructor in Neurology.
WILLIAM F. McLAUGHLIN, M.D., C.M., Instructor in Psychiatry.
MURRAY MELBIN, PH.D., Instructor in Social Psychology in the Department of Psychiatry.
JOST J. MICHELSEN, M.D., Instructor in Neurology.
HALIM MITRY, M.B., CH.B., Instructor in Psychiatry.
ARNOLD H. MODELL, M.D., Instructor in Psychiatry.
SAMUEL L. MOGUL, M.D., Instructor in Psychiatry.
THOMAS A. MORRIS, JR., M.D., Instructor in Psychiatry.
HUGO W. MOSER, M.D., Instructor in Neurology.
MARTIN T. ORNE, M.D., Instructor in Psychiatry (from July 1 through December 31, 1961).
ANN PARSONS, PH.D., Instructor in Social Anthropology in the Department of Psychiatry.
NORMAN L. PAUL, M.D., Instructor in Psychiatry.
EDMUND C. PAYNE, JR., M.D., Instructor in Psychiatry.
RICHARD R. PEEBLES, PH.D., Instructor in Psychology in the Department of Psychiatry.

HARVARD UNIVERSITY

- VINCENT P. PERLO, M.D., Instructor in Neurology.
FRED A. QUADFASEL, M.D., Instructor in Neurology.
DAVID E. REISER, M.D., Instructor in Psychiatry.
ADELE E. SCHARL, M.D., Instructor in Psychiatry.
ROBERT D. SCHNITZER, PH.D., Instructor in Psychology in the
Department of Psychiatry.
MARY L. L. SCHOLL, M.D., Instructor in Neurology.
LIONEL A. SCHWARTZ, M.D., Instructor in Psychiatry.
BERTRAM SELVERSTONE, M.D., Instructor in Neuropathology.
BENJAMIN SHAMBAUGH, M.D., Instructor in Psychiatry.
LEON N. SHAPIRO, M.D., Instructor in Psychiatry.
JUDITH G. SINGER, PH.D., Instructor in Psychology in the Depart-
ment of Psychiatry.
BENSON R. SNYDER, M.D., Instructor in Psychiatry.
HAROLD D. STALVEY, M.D., Instructor in Psychiatry.
MALVINA STOCK, M.D., Instructor in Psychiatry.
ALAN A. STONE, M.D., Instructor in Psychiatry (from August 1,
1961).
JOHN F. SULLIVAN, M.D., Instructor in Neurology.
HELEN H. TARTAKOFF, M.D., Instructor in Psychiatry.
KAREL VAN S. TOLL, M.D., Instructor in Neurology.
H. RICHARD TYLER, M.D., Instructor in Neurology (from July 1
through December 31, 1961).
PAUL L. WATSON, M.D., Instructor in Psychiatry.
HENRY D. WEBSTER, M.D., Instructor in Neurology.
THOMAS G. WEBSTER, M.D., Instructor in Psychiatry.
JEROME L. WEINBERGER, M.D., Instructor in Psychiatry.
LIONELLE D. WELLS, M.D., Instructor in Psychiatry.
DONALD WEXLER, M.D., Instructor in Psychiatry.
NORMAN E. ZINBERG, M.D., Instructor in Psychiatry.
WILLIAM C. ACKERLY, M.D., Assistant in Psychiatry.
MORRIS H. ADLER, M.D., Assistant in Psychiatry.
BARBARA L. AESCHLIMAN, M.D., Assistant in Psychiatry.
KEITH B. AKINS, M.D., Assistant in Psychiatry.
GEORGE L. ALEXANDER, JR., M.D., Assistant in Psychiatry.
HENRY G. ALTMAN, M.D., Assistant in Psychiatry.

MEDICAL SCHOOL

JASON A. ARONSON, M.D., Assistant in Psychiatry.
JUDITH G. BALOGH, M.D., Assistant in Psychiatry.
JOHN S. BARLOW, M.D., Assistant in Neurology.
RUTH B. BEUSCHER, M.D., Assistant in Psychiatry.
WILLIAM F. BEUSCHER, M.D., Assistant in Psychiatry.
WILLIAM A. BINSTOCK, M.D., Assistant in Psychiatry.
GRAHAM B. BLAINE, JR., M.D., Assistant in Psychiatry.
LENORE A. BOLING, M.D., Assistant in Psychiatry.
DOROTHY M. BOLLINGER, M.D., Assistant in Psychiatry.
ANNA C. BROWN, M.D., Assistant in Psychiatry.
BERNARD L. BUSFIELD, JR., Assistant in Psychiatry.
ARTHUR J. CAIN, M.D., Assistant in Psychiatry.
FRANKLIN CARTER, M.D., Assistant in Psychiatry.
GEORGE CHALPIN, M.D., Assistant in Psychiatry.
MIGNON C. CHASEN, M.D., Assistant in Psychiatry.
JACOB R. CHRIST, M.D., Assistant in Psychiatry.
LAWRENCE CLAMAN, M.D., Assistant in Psychiatry (appointment expired December 31, 1961).
JOHN G. CLARK, JR., M.D., Assistant in Psychiatry.
HERBERT S. CLINE, M.D., Assistant in Psychiatry.
VIRGINIA L. CLOWER, M.D., Assistant in Psychiatry.
JAY L. COLLINS, M.D., Assistant in Psychiatry.
JOHN C. COOLIDGE, M.D., Assistant in Psychiatry.
WILLIAM M. CROWELL, M.D., Assistant in Psychiatry.
RICHARD E. CUTLER, M.D., Assistant in Psychiatry.
HADASSAH S. DANIELS, M.D., Assistant in Psychiatry.
CHESTER C. D'AUTREMONT, M.D., Assistant in Psychiatry.
EDWIN M. DAVIDSON, M.D., Assistant in Psychiatry.
GERALD E. DAVIDSON, M.D., Assistant in Psychiatry.
FREDERICK J. DUHL, M.D., Assistant in Psychiatry.
WILLIAM H. EGER, M.D., Assistant in Psychiatry.
RICHARD P. EMERSON, M.D., Assistant in Psychiatry.
ALBERT H. FEINGOLD, M.D., Assistant in Psychiatry.
ALICE M. FLEMING, M.D., Assistant in Psychiatry.
THOMAS FRANK, M.D., Assistant in Psychiatry.
RICHARD GALDSTON, M.D., Assistant in Psychiatry.

HARVARD UNIVERSITY

JACQUELINE GAUTHIER, M.D., Assistant in Psychiatry.
GEORGE E. GIFFORD, JR., M.D., Assistant in Psychiatry (from
September 1, 1961).
HERBERT J. GOLDINGS, M.D., Assistant in Psychiatry.
JACK GREEN, M.D., C.M., Assistant in Psychiatry.
RAMON M. GREENBERG, M.D., Assistant in Neurology.
LESTER GRINSPOON, M.D., Assistant in Psychiatry.
EMILE GRUNBERG, M.D., Assistant in Psychiatry.
HENRY U. GRUNEBaum, M.D., Assistant in Psychiatry.
WALLACE F. HALEY, JR., M.D., Assistant in Psychiatry.
VOLTA R. HALL, JR., M.D., Assistant in Psychiatry.
DORR F. HALLENBECK, JR., M.D., Assistant in Psychiatry.
HERBERT I. HARRIS, M.D., Assistant in Psychiatry.
JAMES A. HAYCOX, M.D., Assistant in Psychiatry.
FRANCIS C. HERSEY, M.D., Assistant in Psychiatry.
LEE JACKSON, M.D., Assistant in Psychiatry.
PIERRE JOHANNET, M.D., Assistant in Psychiatry.
ERNEST KAHN, M.D., Assistant in Psychiatry.
MELVIN M. KAYCE, M.D., Assistant in Psychiatry.
ROBERT L. KELLEY, M.D., Assistant in Psychiatry.
WILLIAM KORNFELD, M.D., Assistant in Psychiatry.
PAUL S. KRAUS, M.D., Assistant in Psychiatry.
ARTHUR R. KRAVITZ, M.D., Assistant in Psychiatry.
MARVIN B. KRIMS, M.D., Assistant in Psychiatry.
ELIOT LANDSMAN, M.D., Assistant in Psychiatry.
HERBERT O. LEVINE, M.D., Assistant in Psychiatry.
ANNE G. LEVINGSTON, M.D., Assistant in Psychiatry.
CHARLES E. MAGRAW, M.D., Assistant in Psychiatry.
WILLIAM F. McCOURT, M.D., Assistant in Psychiatry.
ARTHUR W. McMAHON, M.D., Assistant in Psychiatry.
ELLEN B. MOSELEY, M.D., Assistant in Psychiatry.
EGBERT H. MUELLER, M.D., Assistant in Psychiatry.
MALKAH T. NOTMAN, M.D., Assistant in Psychiatry.
HARRY S. OLIN, M.D., Assistant in Psychiatry.
DONALD H. OSTERBERG, M.D., Assistant in Neurology.
DONALD OTTENSTEIN, M.D., Assistant in Psychiatry.

MEDICAL SCHOOL

GEORGE M. PERRIN, M.D., Assistant in Psychiatry.
MAXWELL G. POTTER, M.D., Assistant in Psychiatry.
ALAN PRAGER, M.D., Assistant in Psychiatry.
HANS G. PREUSS, M.D., Assistant in Psychiatry.
SELMA RAPPAPORT, PH.D., Assistant in Psychology in the Department of Psychiatry.
DAVIDA H. REES, M.D., Assistant in Psychiatry.
JOHN F. REICHARD, M.D., Assistant in Psychiatry.
PHELPS M. ROBINSON, M.D., Assistant in Psychiatry.
JOSEPH C. SABBATH, M.D., C.M., Assistant in Psychiatry.
JOAE G. SELZER, M.D., Assistant in Psychiatry.
CHARLES S. SHELDON, D.P.M., Assistant in Psychiatry.
WILLIAM R. SHELTON, M.D., Assistant in Psychiatry.
MILES F. SHORE, M.D., Assistant in Psychiatry.
NATHAN T. SIDLEY, M.D., Assistant in Psychiatry.
STEWART R. SMITH, M.D., Assistant in Psychiatry.
EDWARD L. SPATZ, M.D., Assistant in Neurology.
RUTH E. STAUFFER, M.D., Assistant in Neurology.
WILLIAM E. STONE, M.D., Assistant in Psychiatry.
JOHN B. STURROCK, M.B., B.S., Assistant in Psychiatry.
SUZANNE T. VAN AMERONGEN, M.D., Assistant in Psychiatry.
MAURICE VANDERPOL, M.D., Assistant in Psychiatry.
JOHN VORENBERG, M.D., Assistant in Psychiatry.
HELEN D. WALLACH, M.D., Assistant in Psychiatry.
MARK M. WALTER, JR., M.D., M.P.H., Assistant in Psychiatry.
STEPHEN L. WASHBURN, M.D., Assistant in Psychiatry.
JOHN L. WEIL, M.D., Assistant in Psychiatry.
FREDERICK E. WHISKIN, M.D., Assistant in Psychiatry.
LEE H. WILLER, M.D., Assistant in Psychiatry.
HAROLD M. WOLMAN, M.D., Assistant in Psychiatry.
MAX L. WOOL, M.D., Assistant in Psychiatry.
HOWARD E. WULSIN, M.D., Assistant in Psychiatry.
MORRIS YORSHIS, M.D., Assistant in Neurology.
EDWARD L. ZARSKY, M.D., Assistant in Psychiatry.
JOAN J. ZILBACH, M.D., Assistant in Psychiatry.
ARTUR ABRAMOVICZ, M.D., Research Fellow in Neurology.

HARVARD UNIVERSITY

- GERALD ADLER, M.D., Research Fellow in Psychiatry.
- ROGER G. BANNISTER, M.B., CH.B., Research Fellow in Neurology
(from February 1, 1962).
- BEATRICE H. BARRETT, PH.D., Research Fellow in Psychology in
the Department of Psychiatry.
- KENNETH R. BERG, PH.D., Research Fellow in Psychology in the
Department of Psychiatry (from September 1, 1961).
- ERNEST W. BERGEL, M.D., Research Fellow in Psychiatry.
- PHILIP R. BOYD, M.B., B.S., Research Fellow in Psychiatry.
- JOSEPH H. BRENNER, M.B., CH.B., Research Fellow in Psychiatry.
- DEXTER M. BULLARD, JR., M.D., Research Fellow in Psychiatry.
- GEORGE H. COLLINS, M.D., Research Fellow in Neurology.
- HOWARD A. CORWIN, M.D., Research Fellow in Psychiatry.
- JEANNETTE H. CORWIN, M.D., Research Fellow in Psychiatry.
- JERRY S. COWAN, M.D., Research Fellow in Psychiatry.
- HILDA DICKOFF, PH.D., Research Fellow in Psychology in the
Department of Psychiatry (from September 1, 1961).
- PAUL R. DINSMORE, M.D., Research Fellow in Psychiatry.
- GERHART A. DUDA, M.D., Research Fellow in Psychiatry.
- BRUCE W. FISCHBERG, M.D., Research Fellow in Psychiatry.
- LAWRENCE A. GUSTAFSON, PH.D., Research Fellow in Psychology
in the Department of Psychiatry.
- SARA S. HAFTER, M.D., Research Fellow in Psychiatry.
- ERNEST L. HARTMANN, M.D., Research Fellow in Psychiatry.
- MATHILDA S. HOLZMAN, PH.D., Research Fellow in Psychology in
the Department of Psychiatry (from September 1, 1961).
- DENISE KANDEL, A.B., Research Fellow in Psychology in the
Department of Psychiatry.
- MARTIN KANTOR, M.D., Research Fellow in Psychiatry.
- BRUCE W. KONIGSMARK, M.D., Research Fellow in Neuropathol-
ogy.
- JOHN M. KULDAU, M.D., Research Fellow in Psychiatry.
- RICHARD H. LENT, PH.D., Research Fellow in Sociology in the
Department of Psychiatry.
- EDWARD LEWIN, M.D., Research Fellow in Neuropathology.
- JOHN T. MALTSBERGER, 3RD., M.D., Research Fellow in Psychiatry.

MEDICAL SCHOOL

ALEJANDRO MANTEROLA, M.D., Research Fellow in Neuropathology.

ROBERT D. MEHLMAN, M.D., Research Fellow in Psychiatry.

NANCY K. MELLO, PH.D., Research Fellow in Psychology in the Department of Psychiatry.

ROY W. MENNINGER, M.D., Research Fellow in Psychiatry (appointment expired September 30, 1961).

EDWARD MESSNER, M.D., Research Fellow in Psychiatry.

ALLAN H. MILOFSKY, M.D., Research Fellow in Psychiatry.

EMANUEL MIREL, M.D., Research Fellow in Psychiatry.

GEORGE W. REVER, M.D., Research Fellow in Psychiatry.

JACK O. RICE, M.D., Research Fellow in Psychiatry.

ROBERT A. ROSENTHAL, PH.D., Research Fellow in Psychology in the Department of Psychiatry.

RALPH R. RUSSELL, M.D., Research Fellow in Neurology (from October 1, 1961).

DAVID G. SATIN, M.D., Research Fellow in Psychiatry.

EDUARDO F. SOTO, M.D., Research Fellow in Neuropathology.

DANUTA M. STACHIEWICZ, M.D., Research Fellow in Psychiatry.

RICHARD A. STERNBACH, PH.D., Research Fellow in Psychology in the Department of Psychiatry.

CAPTANE PETER THOMSON, M.D., Research Fellow in Psychiatry.

ANSGAR TORVIK, M.D., Research Fellow in Neuropathology.

STANLEY VAN DEN NOORT, M.D., Research Fellow in Neurology.

RICHARD V. WILSON, M.D., Research Fellow in Psychiatry.

GERALD F. WINKLER, M.D., Research Fellow in Neuropathology.

MERRILL K. WOLF, M.D., Research Fellow in Neuropathology.

JACOB C. WOLTERBEEK, M.D., Research Fellow in Psychiatry.

WALTER E. AFIELD, M.D., Teaching Fellow in Psychiatry.

JANE V. ANDERSON, M.D., Teaching Fellow in Psychiatry.

WILLIAM S. APPLETON, M.D., Teaching Fellow in Psychiatry.

BARRY G. W. ARNASON, M.D., Teaching Fellow in Neurology.

ARTHUR K. ASBURY, M.D., Teaching Fellow in Neuropathology.

NICHOLAS C. AVERY, M.D., Teaching Fellow in Psychiatry.

JOHN R. BARINGER, M.D., Teaching Fellow in Neurology.

WILLIAM J. BARNUM, JR., M.D., Teaching Fellow in Psychiatry.

HARVARD UNIVERSITY

- KATHRYN S. BECK, M.D., Teaching Fellow in Psychiatry.
GUIDO BELSASSO-PRISTER, M.D., Teaching Fellow in Psychiatry.
JANE M. BERMAN, M.D., Teaching Fellow in Psychiatry.
HARRY BESKIND, M.D., Teaching Fellow in Psychiatry.
CARL L. BIRK, M.D., Teaching Fellow in Psychiatry.
ELEANOR S. BOGOCH, D.M.D., M.D., Teaching Fellow in Psychiatry.
SAMUEL J. BRAUN, M.D., Teaching Fellow in Psychiatry.
CARL N. BROWNSBERGER, M.D., Teaching Fellow in Psychiatry.
DAN H. BUIE, JR., M.D., Teaching Fellow in Psychiatry.
RANDOLPH CATLIN, JR., M.D., Teaching Fellow in Psychiatry.
RICHARD M. CHASIN, M.D., Teaching Fellow in Psychiatry.
PETER T. CHORAS, M.D., Teaching Fellow in Psychiatry.
GEORGE CLOUTIER, M.D., Teaching Fellow in Psychiatry.
MONROE COLE, M.D., Teaching Fellow in Neurology.
ROY M. COLEMAN, M.D., Teaching Fellow in Psychiatry.
JAMES F. W. COX, M.D., Teaching Fellow in Psychiatry.
WELLINGTON B. CU, M.D., Teaching Fellow in Psychiatry.
PRAFULCHANDRA M. DALAL, M.D., Teaching Fellow in Neuro-
pathology.
DAVID M. DAWSON, M.D., Teaching Fellow in Neurology.
JOYCE E. DEVINE, M.D., Teaching Fellow in Neurology.
HENRY B. DINSDALE, M.D., C.M., Teaching Fellow in Neurology.
DAN A. DITMORE, M.D., Teaching Fellow in Psychiatry (from
September 1, 1961).
ROBERT M. EISENDRATH, JR., M.D., Teaching Fellow in Psychi-
atry.
JACK ELLENBERG, M.D., Teaching Fellow in Psychiatry.
LARRY EMBREE, M.D., Teaching Fellow in Neurology.
RALPH P. ENGLE, JR., M.D., Teaching Fellow in Psychiatry.
PATTISON ESMIOL, M.D., Teaching Fellow in Psychiatry.
ROBERT W. FARKAS, M.D., Teaching Fellow in Psychiatry.
JOEL H. FEIGON, M.D., Teaching Fellow in Psychiatry.
DONALD J. FERN, M.D., Teaching Fellow in Psychiatry.
T. CORWIN FLEMING, M.D., Teaching Fellow in Neuropathology.
STUART Q. FLERLAGE, JR., M.D., Teaching Fellow in Psychiatry.
LEONARD J. FRIEDMAN, M.D., Teaching Fellow in Psychiatry.

MEDICAL SCHOOL

MICHAEL G. FUSILLO, M.S., Teaching Fellow in Neurology.
VARDA P. GANZ, M.D., Teaching Fellow in Psychiatry.
JOYCE R. GARRATT, M.B., CH.B., Teaching Fellow in Psychiatry.
MAX GELLER, M.D., Teaching Fellow in Psychiatry.
SID GILMAN, M.D., Teaching Fellow in Neurology.
WILLIAM H. GOODSON, JR., M.D., Teaching Fellow in Psychiatry.
PAULA J. HALLETT, M.D., C.M., Teaching Fellow in Psychiatry.
ROBERT E. HAYES, 3RD., M.D., Teaching Fellow in Neurology.
GEORGE R. HENINGER, M.D., Teaching Fellow in Psychiatry.
ALBERT E. HERMAN, M.D., Teaching Fellow in Psychiatry.
ANN M. M. HIRSCHHORN, M.D., Teaching Fellow in Neurology.
PETER R. HUTTENLOCHER, M.D., Teaching Fellow in Neurology.
PHILLIP L. ISENBERG, M.D., Teaching Fellow in Psychiatry.
JOHN B. ISOM, M.D., Teaching Fellow in Neuropathology.
RICHARD T. JOHNSON, M.D., Teaching Fellow in Neurology.
JORDAN JOSEPH, M.D., Teaching Fellow in Neurology.
EDA M. KAHANA, M.D., Teaching Fellow in Psychiatry.
ERIC R. KANDEL, M.D., Teaching Fellow in Psychiatry (appointment expired August 31, 1961).
JACOB J. KATZOW, M.D., Teaching Fellow in Psychiatry.
ALFRED J. R. KOUMANS, M.D., Teaching Fellow in Psychiatry.
ANTON O. KRIS, M.D., Teaching Fellow in Psychiatry.
JAY KUTEN, M.D., Teaching Fellow in Psychiatry.
CAVIN P. LEEMAN, M.D., Teaching Fellow in Psychiatry.
CARL LEVENTHAL, M.D., Teaching Fellow in Neurology.
BERNARD LEVEY, M.D., Teaching Fellow in Psychiatry.
WALTER S. LEVITSKY, M.D., Teaching Fellow in Neurology.
LEILA LIEBMAN, M.D., Teaching Fellow in Psychiatry (from September 1, 1961).
DON R. LIPSITT, M.D., Teaching Fellow in Psychiatry.
JOHN B. LIVINGSTONE, M.D., Teaching Fellow in Psychiatry.
D. JOHN MACFADYEN, M.D., Teaching Fellow in Neurology.
DENNIS J. MCCRORY, M.D., Teaching Fellow in Psychiatry.
MICHAEL T. MCGUIRE, M.D., Teaching Fellow in Psychiatry.
HOWARD D. MCINTYRE, JR., M.D., Teaching Fellow in Neurology.
GUY M. MCKHANN, M.D., Teaching Fellow in Neurology.

HARVARD UNIVERSITY

ALEXANDER M. MCPHEDRAN, M.D., Teaching Fellow in Neurology.

ELINOR MEISS, M.D., Teaching Fellow in Psychiatry.

JOHN F. MERRIFIELD, M.D., Teaching Fellow in Psychiatry.

JAMES Q. MILLER, M.D., Teaching Fellow in Neuropathology.

SANDRA L. MOGIL, M.D., Teaching Fellow in Psychiatry.

RICHARD G. MORRILL, M.D., Teaching Fellow in Psychiatry.

BARBARA C. G. MUELLER, M.D., Teaching Fellow in Psychiatry.

JAMES J. MULLEN, M.D., Teaching Fellow in Psychiatry (from September 1, 1961).

JULIAN J. NEWMAN, M.D., Teaching Fellow in Psychiatry (from September 1, 1961).

SILVIO J. ONESTI, JR., M.D., C.M., Teaching Fellow in Psychiatry.

STANLEY R. PALOMBO, M.D., Teaching Fellow in Psychiatry.

VERNON D. PATCH, M.D., Teaching Fellow in Psychiatry.

ALAN D. PERSKY, M.D., Teaching Fellow in Psychiatry.

EUGENE U. PIAZZA, M.D., Teaching Fellow in Psychiatry.

ERNEST H. PICARD, M.D., Teaching Fellow in Neuropathology.

JERROLD M. POST, M.D., Teaching Fellow in Psychiatry.

ARTHUR L. PRENSKY, M.D., Teaching Fellow in Neuropathology.

KENNETH S. ROBSON, M.D., Teaching Fellow in Psychiatry.

JUDITH G. RONAT, M.D., Teaching Fellow in Psychiatry.

CHRISTOPHER V. ROWLAND, JR., Teaching Fellow in Psychiatry.

EDWARD J. SACHAR, M.D., Teaching Fellow in Psychiatry.

SIRGAY SANGER, M.D., Teaching Fellow in Psychiatry.

PAUL E. SAPIR, M.D., Teaching Fellow in Psychiatry.

DANIEL S. SAX, M.D., Teaching Fellow in Neurology.

JOSEPH J. SCHILDKRAUT, M.D., Teaching Fellow in Psychiatry.

JOHN A. SCHREMELY, M.D., Teaching Fellow in Psychiatry.

MELVYN B. SCHUPACK, M.D., Teaching Fellow in Psychiatry.

MICHAEL A. SELZER, M.D., Teaching Fellow in Psychiatry.

RICHARD SHADER, M.D., Teaching Fellow in Psychiatry.

ELI R. SHUTER, M.D., Teaching Fellow in Neurology.

VINCENT W. STEWARD, M.B., B.S., Teaching Fellow in Neuropathology.

MYRON R. STOCKING, M.D., Teaching Fellow in Psychiatry.

MEDICAL SCHOOL

JOHN S. STRAUSS, M.D., Teaching Fellow in Psychiatry.
ALBERTO TAFUR, M.D., Teaching Fellow in Psychiatry.
AHMAD TAGHAVY, M.D., Teaching Fellow in Neurology.
IRVIN TAUBE, M.D., Teaching Fellow in Psychiatry.
THOMAS L. TRUNNELL, M.D., Teaching Fellow in Psychiatry.
GEORGE E. VAILLANT, M.D., Teaching Fellow in Psychiatry.
DAVID VAN BUSKIRK, M.D., Teaching Fellow in Psychiatry.
ALFRED D. WEISS, M.D., Teaching Fellow in Neuropathology.
JOHN S. WELTNER, M.D., Teaching Fellow in Psychiatry.
PAUL H. WENDER, M.D., Teaching Fellow in Psychiatry.
HAROLD W. WILLIAMS, JR., M.D., Teaching Fellow in Psychiatry.
RICHARD H. WOLFF, M.D., Teaching Fellow in Psychiatry (from
September 1, 1961).
JOAN B. WOODS, M.D., Teaching Fellow in Psychiatry.
GILBERT F. YOUNG, M.D., Teaching Fellow in Neurology.
STEPHEN L. ZASLOW, M.D., Teaching Fellow in Psychiatry.

Affiliated:

RANDOLPH K. BYERS, M.D., Associate Clinical Professor of Pediatrics.

Neurology

REQUIRED COURSES

NEUROLOGY A. *Second Year*. — Clinical lectures are given at the Boston City and Massachusetts General Hospitals to the entire class. The object of the course is to give the student a general knowledge of the principles of diagnosis of diseases of the nervous system as a preparation for later work.

NEUROLOGY B. *Third Year*. — Clinical lectures are given in the third year at the Boston City and the Massachusetts General Hospitals. This course is to cover differential diagnosis and the principles of treatment. The members of the class are also required to work in the neurological service at the B.C.H. or M.G.H. in sections during the year. For this work the more didactic teaching of the second year serves as a necessary preparation. The work is practical in character and serves to bring the student into immediate contact with patients.

HARVARD UNIVERSITY

SECOND YEAR

HOURS

Clinical lectures. Dr. DENNY-BROWN, B.C.H. and Dr. ADAMS, M.G.H.

14

THIRD YEAR

Clinical lectures. Dr. DENNY-BROWN, B.C.H. and Dr. ADAMS, M.G.H. *Last eight Saturdays in first half-year.*

8

Section teaching. B.C.H. and M.G.H. *Each student attends ten or eleven two and a half-hour exercises in neurology.*

27

FOURTH YEAR ELECTIVE COURSES

1. Neurology. Dr. DENNY-BROWN, B.C.H. Whole course (clerkship), all day.
2. Neurology. Dr. ADAMS, M.G.H. Whole course (clerkship), all day. Each course limited to two students each month.
3. Neurology. Dr. H. R. TYLER, P.B.B.H. Whole course, all day. Limited number. (Same course as Medicine 7 Medical Neurology.)
4. Neurology. Drs. TIMBERLAKE, ADAMS and Associates. Lemuel Shattuck Hospital. Whole course, all day. Limited number.
5. Pediatric Neurology. Dr. BYERS and Associates. C.M.C. Whole course all day. (Same course as Pediatrics 3f.)
6. Pediatric Neurology. Drs. DODGE, ADAMS and Associates. M.G.H. Whole course, all day. (Same course as Pediatrics 4c.)

Neuropathology

REQUIRED COURSE

NEUROPATHOLOGY A. *Second Year.*—The course consists of lectures, laboratory work, and demonstrations, amounting to fifty-four hours. The lectures introduce conceptions of value for the third year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. Microscopical and gross specimens are studied.

SECOND YEAR

HOURS

Lectures and laboratory work. Dr. ADAMS and Staff. *Four times a week, for four and one-half weeks.*

56

MEDICAL SCHOOL

FOURTH YEAR ELECTIVE COURSE

20. Laboratory work. Opportunities for research are available at the laboratories of the M.G.H., B.C.H., and H.M.S. Time and instructor to be arranged with Drs. ADAMS or DENNY-BROWN.

Psychiatry

REQUIRED COURSES

First and Second Year: — The course titled Growth and Development (described on page 92) embraces and integrates with the first two years of required course in Psychiatry.

PSYCHIATRY A. *First Year.* — Normal Growth and Development; 16 lectures, 7 discussion sessions, and 7 clinics. Introduction to the development of the human personality. The course reviews the understanding of the human being, whether sick or well, and the foundation is laid for the more advanced course in psychopathology. The lectures deal with the development of the human personality in the setting of the family and the culture from infancy through childhood and adolescence to maturity and aging. Emphasis is laid upon the adjustment of normal personality types to various crises situations, the influence of anxiety and the significance of unconscious forces. Members of the psychiatric staff participate in the clinics designed to relate material of their course in the first year to problems of human development and variation.

PSYCHIATRY B. *Second Year.* — The second year consists of 20 lectures in abnormal growth and development to develop further concepts of psychological functioning. Emphasis shifts to the nature and genesis of abnormal psychological mechanisms which result from individual, social and physical factors and are manifested in symptoms and behavioral disturbances. Four additional hours are given to introduce methods of history-taking and examination of patients designed to understand more fully socio-emotional factors in illness. The course includes lectures and clinical instruction in sections of four students on wards of the general hospitals. It is designed to serve as a preparation for the third year when the student will have direct contact with patients on hospital wards. Four three-hour sections are given in cooperation with physical diagnosis. Members of the Psychiatry De-

HARVARD UNIVERSITY

partment participate in laboratory periods organized for the study of organ systems as part of the integrated teaching program.

PSYCHIATRY C. *Third Year.* — The class is divided into small sections for the clinical study of patients. Each student studies individual cases in the wards of the Massachusetts Mental Health Center. During the second half year, clinical lectures are given once a week at the Massachusetts Mental Health Center. The most important varieties of mental disorder are presented with emphasis upon early recognition of mental disease and methods of treatment.

PSYCHIATRY D. *Fourth Year.* — Each student serves as a clinical clerk for one month at the Massachusetts Mental Health Center, the Massachusetts General Hospital, or the McLean Hospital in conjunction with the Beth Israel Hospital, for out-patient work. Work with in-patients consists of the study of patients with various types of mental disorder and their treatment. The study and treatment of patients, with emphasis on the applications of psychiatry to general medical practice is given by the Harvard Teaching Unit of the Massachusetts Mental Health Center and the out-patient departments of the Massachusetts General and Beth Israel Hospitals. The psychiatric problems of children are discussed by staff members of the Judge Baker Foundation at the Children's Hospital, and by those associated with the M.M.H.C., M.G.H., and B.I.H.

FIRST YEAR

HOURS

PSYCHIATRY A. Lectures and discussion groups. Drs. LINDEMANN, GARDNER, BIBRING and Associates. Dr. GARDNER QUARTON coordinator for course in Growth and Development.	30
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SECOND YEAR

PSYCHIATRY B. Lectures and section teaching. Drs. LINDEMANN, BIBRING and Associates. Dr. JOHN NEMIAH coordinator for course in Abnormal Growth and Development. <i>In addition to twenty-two lectures, each student attends four three-hour exercises as part of the course in physical diagnosis.</i>	22 12
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THIRD YEAR

PSYCHIATRY C. Lectures and section teaching. Drs. EWALT, SEMRAD, LUDWIG and Associates. M.M.H.C. <i>Each student attends at least ten three-hour exercises.</i>	44
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MEDICAL SCHOOL

FOURTH YEAR

HOURS

PSYCHIATRY D. Clinical Clerkship. Drs. EWALT, HENDRICK and Associates at the hospitals concerned: D₁-M.M.H.C., D₂-M.G.H., D₃-McL.H. and B.I.H.

144

FOURTH YEAR ELECTIVE COURSES

(Offered monthly throughout the year.)

Adult Psychiatry

4. Dr. HENDRICK and Associates. M.M.H.C.
5. Dr. LINDEMANN and Associates. M.G.H.
6. Dr. STANTON and Associates. McL.H.
7. Dr. BIBRING and Associates. B.I.H.

Child Psychiatry

8. Dr. ROCHLIN and Associates. M.M.H.C.
9. Dr. BLOM and Associates. M.G.H. (same course as Pediatrics 5)
10. Dr. BIBRING and Associates. B.I.H.
11. Dr. GARDNER and Associates. C.M.C.

Ophthalmology

EDWIN B. DUNPHY, M.D., Henry Willard Williams Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary, and Head of the Department.

DAVID G. COGAN, M.D., Professor of Ophthalmology, and Director of the Howe Laboratory of Ophthalmology.

PAUL A. CHANDLER, M.D., D.S. (hon.), Associate Clinical Professor of Ophthalmology.

HENRY F. ALLEN, M.D., Assistant Clinical Professor of Ophthalmology.

WILLIAM P. BEETHAM, M.D., Assistant Clinical Professor of Ophthalmology.

VIRGIL G. CASTEN, M.D., Assistant Clinical Professor of Ophthalmology.

PAUL BOEDER, Ph.D., Lecturer on Ophthalmology.

CARL C. JOHNSON, M.D., Clinical Associate in Ophthalmology.

BRENDAN D. LEAHEY, M.D., Clinical Associate in Ophthalmology.

HARVARD UNIVERSITY

- CHARLES L. SCHEPENS, M.D., Clinical Associate in Ophthalmology.
ALBERT E. SLOANE, M.D., Clinical Associate in Ophthalmology.
TAYLOR R. SMITH, M.D., Clinical Associate in Ophthalmology.
GARRETT L. SULLIVAN, JR., M.D., Clinical Associate in Ophthalmology.
ENDRE A. BALAZS, M.D., Lecturer on Ophthalmology.
RUSSELL L. CARPENTER, PH.D., Lecturer on Ophthalmology.
TRYGVE GUNDERSEN, M.D., Lecturer on Ophthalmology.
MARIE A. JAKUS, PH.D., Lecturer on Ophthalmology (resigned August 31, 1961).
DERRICK T. VAIL, M.D., Visiting Lecturer on Ophthalmology (from April 16 through April 20, 1962).
LEONA R. ZACHARIAS, PH.D., Lecturer on Ophthalmology.
MICHIO OIKAWA, M.D., PH.D., Research Associate in Ophthalmology (from August 16, 1961).
HARRY E. BRACONIER, M.D., Instructor in Ophthalmology.
THOMAS J. A. CAVANAUGH, M.D., C.M., Instructor in Ophthalmology.
JULIAN F. CHISHOLM, JR., M.D., Instructor in Ophthalmology.
JOSEPH M. CLOUGH, M.D., Instructor in Ophthalmology.
CLAES-HENRIK DOHLMAN, M.D., PH.D., Instructor in Ophthalmology.
MAHLON T. EASTON, M.D., Instructor in Ophthalmology.
JOHN M. HILL, M.D., Instructor in Ophthalmology.
SUMNER D. LIEBMAN, M.D., Instructor in Ophthalmology.
HENRY A. MOSHER, M.D., Instructor in Ophthalmology.
RICHARD B. PIPPITT, M.D., Instructor in Ophthalmology.
ABRAHAM POLLEN, M.D., Instructor in Ophthalmology.
CHARLES D. J. REGAN, M.D., Instructor in Ophthalmology.
KARL RIEMER, M.D., Instructor in Ophthalmology.
EARL S. SEALE, M.D., Instructor in Ophthalmology.
ERNST G. G. WOLF, PH.D., Instructor in Ophthalmology.
SAUL A. BORUCHOFF, M.D., Assistant in Ophthalmology.
ROBERT J. BROCKHURST, M.D., Assistant in Ophthalmology.
RICHARD B. CHAPMAN, M.D., Assistant in Ophthalmology.
THOMAS P. CRONIN, M.D., Assistant in Ophthalmology.

MEDICAL SCHOOL

ROBERT J. HERM, M.D., Assistant in Ophthalmology.
BARUCH J. SACHS, M.D., Assistant in Ophthalmology.
ALFRED W. SCOTT, JR., M.D., Assistant in Ophthalmology.
WILLIAM STONE, JR., M.D., Assistant in Ophthalmology.
FRANCIS J. WEST, M.D., Assistant in Ophthalmology.
MICHAEL WIEDMAN, M.D., Assistant in Ophthalmology.
BENJAMIN ZIV, M.D., Assistant in Ophthalmology.
FREDERICK DUSHAY, M.D., Research Fellow in Ophthalmology.
BERNARD T. HUTCHINSON, M.D., Research Fellow in Ophthalmology.
DAVID L. KNOX, M.D., Research Fellow in Ophthalmology.
ARNOLD J. KROLL, M.D., Research Fellow in Ophthalmology.

REQUIRED COURSES

First Year. — Lecture in anatomy and physiology of the eye.
Second Year. — Lecture in pathology and pharmacology of the eye.
Third Year. — Instruction in clinical ophthalmology.

	THIRD YEAR	HOURS
Thirteen clinical exercises. M.E.E.I.		35
Lectures on clinical ophthalmology. H.M.S., <i>second half-year.</i>		4

FOURTH YEAR ELECTIVE COURSE

1. Clinical Ophthalmology. Drs. DUNPHY, CHANDLER, COGAN and Associates. M.E.E.I. Whole course, all day.

Howe Laboratory of Ophthalmology

DAVID G. COGAN, M.D., Professor of Ophthalmology, and Director of the Howe Laboratory of Ophthalmology.
W. MORTON GRANT, M.D., Associate Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary.
DAVID D. DONALDSON, M.D., Assistant Professor of Ophthalmology.
JIN H. KINOSHITA, PH.D., Assistant Professor of Biological Chemistry in the Howe Laboratory of Ophthalmology.

HARVARD UNIVERSITY

TOICHIRO KUWABARA, M.D., Assistant Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary.

JEREMY B. WHITNEY, M.D., Assistant in Ophthalmology.

JOHN S. ANDREWS, JR., PH.D., Instructor in Ophthalmic Research.

SIDNEY FUTTERMAN, PH.D., Instructor in Ophthalmology.

CARL KUPFER, M.D., Instructor in Ophthalmology.

ABRAHAM SPECTOR, PH.D., Instructor in Ophthalmic Research.

SELMA HAYMAN, PH.D., Research Fellow in Ophthalmology.

The Howe Laboratory of Ophthalmology was founded in 1927 by the late Dr. Lucien Howe. A sum of money equal to that initially given by Dr. Howe was donated by the Rockefeller Foundation. Laboratory space was provided by the Massachusetts Eye and Ear Infirmary.

The purpose of the Laboratory is to advance ophthalmology; its researches are not restricted to any particular phase of this science. Advantage is taken of the rich clinical material of the Infirmary. While the Laboratory is purely an institution for research, the services of the various members of the staff are available for teaching in the Harvard Medical School and for assistance in the clinical work of the Infirmary.

Radiology

EDWARD B. D. NEUHAUSER, M.D., Clinical Professor of Radiology.

LAURENCE L. ROBBINS, M.D., Clinical Professor of Radiology.

JAMES B. DEALY, JR., M.D., Associate Clinical Professor of Radiology, and Acting Head of the Department.

MARTIN H. WITTENBERG, M.D., Associate Clinical Professor of Radiology.

MAX RITVO, M.D., Assistant Clinical Professor of Radiology.

RICHARD SCHATZKI, M.D., Assistant Clinical Professor of Radiology.

MILFORD D. SCHULZ, M.D., Assistant Clinical Professor of Radiology.

EDWARD W. WEBSTER, PH.D., Assistant Professor of Physics in the Department of Radiology at the Massachusetts General Hospital (from January 1, 1962).

MEDICAL SCHOOL

STANLEY M. WYMAN, M.D., Assistant Clinical Professor of Radiology.

JOSEPH H. MARKS, M.D., Clinical Associate in Radiology.

MORRIS SIMON, M.B., CH.B., Clinical Associate in Radiology.

HENRY L. GARLAND, M.D., Visiting Lecturer on Radiology, Harvard Medical School; Radiologist-in-Chief *Pro Tempore*, Peter Bent Brigham Hospital (October 23 through October 28, 1961).

STANLEY J. ADELSTEIN, M.D., Philip H. Cook Fellow in Radiology, and Instructor in Anatomy.

GIULO J. D'ANGIO, M.D., Instructor in Radiology.

FRED L. DEGIACOMO, M.D., Instructor in Radiology (died December 2, 1961).

JACK R. DREYFUSS, M.D., Instructor in Radiology.

JOHN E. GARY, M.D., Instructor in Radiology.

GEORGE B. C. HARRIS, M.D., Instructor in Radiology.

MIRLE A. KELLETT, M.D., Instructor in Radiology.

ALEXANDER S. MACMILLAN, JR., M.D., Instructor in Radiology.

JAMES M. McNEILL, M.D., Instructor in Radiology.

ROBERT G. MOFFAT, M.D., Instructor in Radiology.

PAUL F. J. NEW, M.B., B.S., Instructor in Radiology.

MAJIC S. POTSAID, M.D., Instructor in Radiology.

PAUL M. G. ST. AUBIN, M.D., Instructor in Radiology.

JOHN L. SOSMAN, M.D., Instructor in Radiology.

EDWARD W. WEBSTER, PH.D., Instructor in Radiology (from July 1 through December 31, 1961).

NOEL H. ALDRIDGE, M.B., CH.B., Assistant in Radiology.

JOHAN P. BONK, M.D., Assistant in Radiology.

BORIS P. BUSHUEFF, M.D., Assistant in Radiology.

JOHN K. COBB, M.D., Assistant in Radiology.

DONALD B. DARLING, M.D., Assistant in Radiology (from November 15, 1961).

ANTONIO J. DIRIENZO, M.D., Assistant in Radiology (resigned September 15, 1961).

BIAGIO GENTILI, M.D., Assistant in Radiology.

LLOYD E. HAWES, M.D., Assistant in Radiology.

HARVARD UNIVERSITY

FRANCIS A. HERZAN, M.D., Assistant in Radiology.

MALCOLM C. HILL, M.B., B.S., Assistant in Radiology (resigned October 7, 1961).

DEMETRIOS NIKOLAIDIS, M.D., Assistant in Radiology.

RICHARD G. O'BRIEN, M.D., Assistant in Radiology.

HENRY P. PENDERGRASS, M.D., Assistant in Radiology (from November 15, 1961).

KEITH R. RABINOV, M.D., Assistant in Radiology.

ECKART SACHSSE, M.D., Assistant in Radiology.

HUBERT S. SEAR, M.D., Assistant in Radiology.

WILLIAM D. SUER, M.D., Assistant in Radiology (from November 15, 1961).

FREDERICK S. TOMCHIK, M.D., Assistant in Radiology.

ALFRED L. WEBER, M.D., Assistant in Radiology.

WALTHER T. WEYLMAN, M.D., Assistant in Radiology.

DAVID C. GLEASON, M.D., Research Fellow in Radiology (appointment expired December 31, 1961).

RONALD CABLE, M.B., CH.B., Teaching Fellow in Radiology (resigned September 9, 1961).

PETER M. HACKING, M.B., CH.B., Teaching Fellow in Radiology.

NORMAN L. SADOWSKY, M.D., Teaching Fellow in Radiology (July 1 through December 31, 1961).

REQUIRED COURSES

First Year.—Radiological instruction during the first year comprises a series of lectures, during the course in Anatomy, designed to introduce and apply the X-ray method as a means of studying gross internal anatomy in health and disease. The practical application of these methods is extended in the Saturday clinics.

Second Year.—During the second semester of the second year, small group exercises and laboratories are conducted in conjunction with the program of correlative teaching, with emphasis on the systematic approach to X-ray interpretation and the correlation of abnormal findings with gross pathology and patho-physiology.

MEDICAL SCHOOL

Third Year. — In the third year the following instruction is offered: (a) three general lectures, two on radiation therapy and one an interdepartmental panel lecture on "Risk Versus Need and the Safe Conduct of Radiological Procedures"; (b) three clinical exercises, one each trimester, for the purpose of correlating the major types of X-ray examination with the diagnosis and treatment of disease states and (c) informal weekly discussions, repeated each trimester for the third of the class assigned to surgery, to consider the practical application of both diagnostic and therapeutic techniques to representative surgical cases under study.

FOURTH YEAR ELECTIVE COURSE

Radiology. Drs. DEALY, P.B.B.H., ROBBINS, M.G.H., RITVO, B.C.H., SIMON, B.I.H., NEUHAUSER, C.M.C., MARKS, N.E.D.H., SCHATZKI, Mt. A.H., and BUSHUEFF, W.R.V.A.H.

Pediatrics

CHARLES A. JANEWAY, M.D., A.M. (hon.), Thomas Morgan Rotch Professor of Pediatrics, and Head of the Department at The Children's Hospital.

RANDOLPH K. BYERS, M.D., Associate Clinical Professor of Pediatrics.

LOUIS K. DIAMOND, M.D., Associate Professor of Pediatrics at The Children's Hospital.

ALEXANDER S. NADAS, M.D., Associate Clinical Professor of Pediatrics.

HARRY SHWACHMAN, M.D., Associate Clinical Professor of Pediatrics.

CLEMENT A. SMITH, M.D., A.M. (hon.), Associate Professor of Pediatrics at the Boston Lying-in Hospital.

NATHAN B. TALBOT, M.D., Associate Professor of Pediatrics at the Massachusetts General Hospital, and Acting Head of the Department at the Massachusetts General Hospital.

FRED H. ALLEN, JR., M.D., Assistant Clinical Professor of Pediatrics.

HARVARD UNIVERSITY

WILLIAM BERENBERG, M.D., Assistant Clinical Professor of Pediatrics.

STEWART H. CLIFFORD, M.D., Assistant Clinical Professor of Pediatrics.

CHARLES D. COOK, M.D., Assistant Professor of Pediatrics, and Tutor in Medical Science.

JOHN D. CRAWFORD, M.D., Assistant Professor of Pediatrics, and Tutor in Medical Science.

JOHN A. V. DAVIES, M.D., Assistant Clinical Professor of Pediatrics.

R. CANNON ELEY, M.D., Assistant Clinical Professor of Pediatrics.

DAVID GITLIN, M.D., Assistant Professor of Pediatrics.

BENEDICT F. MASSELL, M.D., Assistant Clinical Professor of Pediatrics.

RALPH A. ROSS, M.D., Assistant Clinical Professor of Pediatrics.

JAMES R. GALLAGHER, M.D., Lecturer on Pediatrics.

ROBERT B. BERG, M.D., Associate in Pediatrics at the Beth Israel Hospital (from October 1, 1961).

LEO B. BURGIN, M.D., Clinical Associate in Pediatrics.

JOHN F. CRIGLER, JR., M.D., Associate in Pediatrics.

JAMES E. DRORBAUGH, M.D., Clinical Associate in Pediatrics.

FRANCIS X. FELLERS, M.D., Associate in Pediatrics.

HENRY E. GALLUP, M.D., Clinical Associate in Pediatrics.

PARK S. GERALD, M.D., Associate in Pediatrics at The Children's Hospital.

ROBERT J. HAGGERTY, M.D., Associate in Pediatrics.

SAMUEL L. KATZ, M.D., Associate in Pediatrics at the Beth Israel Hospital.

CESARE T. LOMBROSO, M.D., Clinical Associate in Pediatrics.

ROBERT P. MASLAND, JR., M.D., Clinical Associate in Pediatrics.

HARRY L. MUELLER, M.D., Clinical Associate in Pediatrics.

RICHMOND S. PAINE, M.D., Associate in Pediatrics at The Children's Hospital.

DAVID W. SHERWOOD, M.D., Clinical Associate in Pediatrics.

SYDNEY S. GELLIS, M.D., Lecturer on Pediatrics.

SIDNEY KIBRICK, PH.D., M.D., Lecturer on Pediatrics.

MEDICAL SCHOOL

- LOUIS WEINSTEIN, PH.D., M.D., Lecturer on Infectious Diseases.
IRENA ANTONOWICZ, M.S., Research Associate in Pediatrics (on leave September 1, 1961 through June 30, 1962).
DEWITT C. BALDWIN, JR., Research Associate in Pediatrics.
ALLEN C. CROCKER, M.D., Research Associate in Pediatrics.
MARY L. S. EFRON, M.D., Research Associate in Pediatrics.
ENRIQUE GALAN, M.D., Research Associate in Pediatrics (from October 16, 1961).
NORMAN I. GOLD, PH.D., Research Associate in Biological Chemistry in the Department of Pediatrics.
LAWRENCE C. KINGSLAND, JR., M.D., Research Associate in Pediatrics.
EZIO MERLER, PH.D., Research Associate in Biological Chemistry in the Department of Pediatrics.
JACOB G. MICHAEL, PH.D., Research Associate in Bacteriology and Immunology in the Department of Pediatrics.
ROBERT G. MONROE, M.D., Research Associate in Pediatrics.
EDITH M. TAYLOR, PH.D., Research Associate in Pediatrics.
DONALD M. ALLEN, M.D., Instructor in Pediatrics.
OLGA E. ALLERS, M.D., Instructor in Pediatrics.
THOMAS B. BRAZELTON, M.D., Instructor in Pediatrics.
JOHN K. BRINES, M.D., Instructor in Pediatrics.
WILLIAM D. COCHRAN, M.D., Instructor in Pediatrics.
GEORGE T. CRITZ, M.D., Instructor in Pediatrics.
KAREL J. DE HAAS, M.D., Instructor in Pediatrics.
WILLIAM A. DICKSON, M.D., Instructor in Pediatrics.
ELAINE K. DONNELLAN, M.D., C.M., Instructor in Pediatrics.
WILLIAM R. DORSEY, M.D., C.M., Instructor in Pediatrics.
EDWARD C. DYER, M.D., Instructor in Pediatrics.
LEROY L. ELDREDGE, JR., M.D., Instructor in Pediatrics.
AUDREY E. EVANS, M.D., (Equiv.), Instructor in Pediatrics.
ALBERT A. FRANK, M.D., Instructor in Pediatrics.
ROBERT N. GANZ, M.D., Instructor in Pediatrics.
SIDNEY GREEN, M.D., Instructor in Pediatrics.
ANNA J. HAUCK, M.D., Instructor in Pediatrics.
SPRAGUE W. HAZARD, M.D., Instructor in Pediatrics.

HARVARD UNIVERSITY

ALLEN M. HILL, M.D., Instructor in Pediatrics.
JOHN P. HUBBELL, JR., M.D., Instructor in Pediatrics.
RICHARD B. KEARSLEY, M.D., Instructor in Pediatrics.
SHERWIN V. KEVY, M.D., Instructor in Pediatrics.
LUCAS L. KULCZYCKI, M.B., CH.B., D.P.H., Instructor in Pediatrics.
ALEXANDER S. MACDONALD, JR., M.D., Instructor in Pediatrics.
FRANCIS C. McDONALD, M.D., Instructor in Pediatrics.
JOSEPH J. MCGOVERN, M.D., Instructor in Pediatrics.
CAMPBELL W. McMILLAN, M.D., Instructor in Pediatrics.
MORRIS MEDALIE, M.B., B.S., Instructor in Pediatrics.
ROGER J. MEYER, M.D., Instructor in Pediatrics.
ANNA T. MITUS, M.D., Instructor in Pediatrics.
ROBERT T. MOULTON, M.D., Instructor in Pediatrics.
JULIAN L. PEARLMAN, M.D., Instructor in Pediatrics.
THOMAS C. PEEBLES, M.D., Instructor in Pediatrics.
WILLIAM PFEFFER, JR., M.D., Instructor in Pediatrics.
DANIEL R. RECTANUS, M.D., Instructor in Pediatrics.
GERTRUD C. REYERSBACH, M.D., Instructor in Pediatrics.
ROBERT H. RICHIE, JR., M.D., Instructor in Pediatrics.
JOHN S. ROBEY, M.D., Instructor in Pediatrics.
JAMES W. SAYRE, M.D., Instructor in Pediatrics.
ROBERT T. SCEERY, M.D., Instructor in Pediatrics.
EDWARD M. SEARS, M.D., Instructor in Pediatrics.
NASROLLAH T. SHAHIDI, M.D., Instructor in Pediatrics.
S. NORMAN SHERRY, M.D., Instructor in Pediatrics.
HYMAN SHRAND, M.B., CH.B., Instructor in Pediatrics (from
October 1, 1961).
LONDON SNEDEKER, M.D., M.P.H., Instructor in Pediatrics.
JUAN F. SOTOS, M.D., Instructor in Pediatrics.
JOHN A. SPARGO, M.D., Instructor in Pediatrics.
RUDOLF TOCH, M.D., Instructor in Pediatrics.
JOHN W. G. TUTHILL, M.D., Instructor in Pediatrics.
JACOB WALLACE, M.D., Instructor in Pediatrics.
WILLIAM D. WINTER, JR., M.D., Instructor in Pediatrics.
ELEONORE C. ZAUDY, M.D., Instructor in Pediatrics.
ALLA G. ZAVAR, M.B., B.S., Instructor in Pediatrics.

MEDICAL SCHOOL

- WILLIAM J. ADELSON, M.D., Assistant in Pediatrics.
DONALD J. ANNINO, M.D., Assistant in Pediatrics.
IRVING W. BAILIT, M.D., Assistant in Pediatrics.
EUAN T. BLANCH, M.D., Assistant in Pediatrics.
JAMES J. A. CAVANAUGH, M.D., Assistant in Pediatrics.
KELLEY K. DAVIS, M.D., Assistant in Pediatrics.
LAWRENCE J. ESSEMBER, M.D., Assistant in Pediatrics.
STEPHEN M. FRAWLEY, M.D., Assistant in Pediatrics.
ELIZABETH A. GREGORY, M.D., Assistant in Pediatrics.
MARY E. HAGGARD, M.D., Assistant in Pediatrics.
PAUL G. HUGENHOLT, M.D., Assistant in Pediatrics.
MAURICE N. KAY, M.D., Assistant in Pediatrics.
LEON E. KRUGER, M.D., Assistant in Pediatrics.
DUNCAN H. MACNAMEE, M.D., Assistant in Pediatrics.
PAULINE M. H. MAZUMBAR, M.D., Assistant in Pediatrics (from
September 1, 1961).
MYRON MORRIS, PH.D., M.D., Assistant in Pediatrics (from August
16, 1961).
LAWRENCE S. MORSE, M.D., Assistant in Pediatrics.
OTTO S. NAU, M.D., Assistant in Pediatrics.
ALICE C. NAUEN, M.D., Assistant in Pediatrics.
ROBERT J. ORME, M.D., Assistant in Pediatrics.
JOSEPH OSBORNE, M.D., Assistant in Pediatrics.
HOWARD J. POTTER, M.D., Assistant in Pediatrics.
HEDWIG E. O. ROSE, M.B., CH.B., Assistant in Pediatrics.
HERBERT L. RUBEN, M.D., Assistant in Pediatrics.
JORDAN S. RUBOY, M.D., Assistant in Pediatrics.
ARTHUR J. SALISBURY, M.D., Assistant in Pediatrics.
GERALD B. SHATTUCK, M.D., Assistant in Pediatrics.
GEORGE L. SIEGEL, A.B., Assistant in Pediatrics (from August 16,
1961).
HARRY B. STULTS, JR., M.D., Assistant in Pediatrics.
GEORGE H. TAFT, M.D., Assistant in Pediatrics.
MICHAEL P. TRISTAN, M.D., Assistant in Pediatrics.
WILHELMINA M. VAN DYKE, M.D., Assistant in Pediatrics.
HAROLD J. WHEELER, M.D., Assistant in Pediatrics.

HARVARD UNIVERSITY

- THOMAS J. WHITFIELD, 3RD., M.D., Assistant in Pediatrics.
ALAN ZISKIND, M.D., Assistant in Pediatrics.
ALBERTO A. ABADI, M.D. (Equiv.), Research Fellow in Pediatrics.
FRANCISCO J. AMEZCUA, M.D., Research Fellow in Pediatrics.
JACQUELINE T. AMEZCUA, M.D., Research Fellow in Pediatrics
(appointment expired January 31, 1962).
GORDON P. BAKER, M.D., Research Fellow in Pediatrics (from
September 1, 1961).
DAVID H. CARVER, M.D., Research Fellow in Pediatrics.
RUSSELL D. CUNNINGHAM, M.D., Research Fellow in Pediatrics.
EDWARD C. DEFOE, JR., M.D., Research Fellow in Pediatrics (re-
signed September 30, 1961).
THOMAS B. DELANEY, M.D., Research Fellow in Pediatrics.
GERALD M. FENDRICK, M.D., Research Fellow in Pediatrics (from
January 1, 1961).
JOHN W. GALLUP, M.D., Research Fellow in Pediatrics.
WALTER J. GAMBLE, M.D., Research Fellow in Pediatrics.
ELINOR P. M. GLAUSER, M.D., Research Fellow in Pediatrics (ap-
pointment expired July 31, 1961).
SHELDON GROSS, M.D., Research Fellow in Pediatrics (appoint-
ment expired December 31, 1961).
MILTON S. GROSSMAN, M.D., Research Fellow in Pediatrics.
JEROME A. GRUNT, PH.D., M.D., Research Fellow in Pediatrics.
ROBERT P. HARDMAN, M.D., Research Fellow in Pediatrics.
MONTGOMERY C. HART, M.D., Research Fellow in Pediatrics.
EDWARD J. HERSHGOLD, M.D., Research Fellow in Pediatrics.
MEHMET N. KALAYCI, M.D., Research Fellow in Pediatrics (ap-
pointment expired December 31, 1961).
ELLEN S. S. S. KANG, M.D., Research Fellow in Pediatrics.
KON T. KHAW, M.D., M.P.H., Research Fellow in Pediatrics.
DINAH KOHNER, M.D. (Equiv.), Research Fellow in Pediatrics
(from September 1, 1961).
CHRISTOPHER G. C. LAFARGE, M.D., Research Fellow in Pediatrics.
MARTHA J. LEAS, M.D., Research Fellow in Pediatrics.
MARTIN H. LEES, M.B., B.S., Research Fellow in Pediatrics (ap-
pointment expired August 31, 1961).

MEDICAL SCHOOL

- HENRY LEVISON, M.D., Research Fellow in Pediatrics.
- PHILIP J. LIPTSITZ, M.B., CH.B., Research Fellow in Pediatrics (appointment expired October 10, 1961).
- MARGARET H. MACGILLIVRAY, M.D., Research Fellow in Pediatrics (from September 1, 1961).
- CLARENCE L. MORGAN, M.D., Research Fellow in Pediatrics.
- ANDREW B. MURRAY, M.B., CH.B., Milton Research Fellow in Pediatrics.
- KIARASH NAFICY, M.D., Research Fellow in Pediatrics.
- JOSEPH L. NAIMAN, M.D., Research Fellow in Pediatrics.
- FRANCIS F. NAKAMURA, M.D., Research Fellow in Pediatrics.
- MARCELLO ORZALESI, M.D., Research Fellow in Pediatrics (from October 1, 1961).
- FRANK A. OSKI, M.D., Research Fellow in Pediatrics.
- SINASI OZSOYLU, M.D., Research Fellow in Pediatrics.
- SALVATORE PELARGONIO, M.D., Research Fellow in Pediatrics.
- ROBERT S. PITTELL, M.D., Research Fellow in Pediatrics (appointment expired September 30, 1961).
- HERNANDO POSADA, M.D., Research Fellow in Pediatrics.
- ALBERTO PRADILLA, M.D., Research Fellow in Pediatrics (from September 1, 1961).
- LOUIS S. PROD'HOM, PH.D., M.D., Research Fellow in Pediatrics.
- ARTHUR L. ROSE, M.B., CH.B., Research Fellow in Pediatrics.
- FRED S. ROSEN, M.D., Research Fellow in Pediatrics.
- KRISHNA M. SAXENA, M.D., Research Fellow in Pediatrics.
- BORIS SENIOR, M.B., CH.B., Research Fellow in Pediatrics.
- DENNIS SLONE, M.B., CH.B., Research Fellow in Pediatrics.
- MARVIN SNIDER, PH.D., Milton Research Fellow in Pediatrics.
- RUTH H. STRANG, M.D., Research Fellow in Pediatrics (appointment expired October 31, 1961).
- LEONARD B. STRANG, M.B., B.S., Research Fellow in Pediatrics (from September 15, 1961).
- HERBERT S. STRAUSS, M.D., Research Fellow in Pediatrics.
- SE MO SUH, M.D., Research Fellow in Pediatrics.
- JERSY T. SWIDERSKI, M.D., Research Fellow in Pediatrics (appointment expired January 31, 1962).

HARVARD UNIVERSITY

- RAJENDRA TANDON, M.D., Research Fellow in Pediatrics.
WALTER M. TELLER, M.D., Research Fellow in Pediatrics.
IRVING UMANSKY, M.D., Research Fellow in Pediatrics.
JARMO K. VISAKORPI, M.D. (Equiv.), Research Fellow in Pediatrics (resigned November 30, 1961).
HENDRIK K. A. VISSER, M.D., Research Fellow in Pediatrics (appointment expired September 30, 1961).
ERNEST I. WEIS, M.D., Research Fellow in Pediatrics.
MARK ABRAMOWICZ, M.D., Teaching Fellow in Pediatrics.
JOEL J. ALPERT, M.D., Teaching Fellow in Pediatrics.
EDWARD M. BRETT, M.B., CH.B., Teaching Fellow in Pediatrics (appointment expired December 31, 1961).
CHARLES E. BURDEN, M.D., Teaching Fellow in Pediatrics.
JOHN P. CONNELLY, M.D., Teaching Fellow in Pediatrics.
GERALD M. FENDRICK, M.D., Teaching Fellow in Pediatrics (appointment expired December 31, 1961).
LORNE K. GARRETTSON, M.D., Teaching Fellow in Pediatrics.
ROBERT A. GOODELL, JR., M.D., Teaching Fellow in Pediatrics.
WILLIAM E. HODGKIN, M.D., Teaching Fellow in Pediatrics.
ANDREW M. JOHNSON, M.D., Teaching Fellow in Pediatrics.
JOHN B. JOSEPH, M.D., Teaching Fellow in Pediatrics.
LEONARD I. KLEINMAN, M.D., Teaching Fellow in Pediatrics.
JANE C. MACLEOD, M.D., Teaching Fellow in Pediatrics.
BRIGID P. NESBURN, M.D., Teaching Fellow in Pediatrics.
AMMON ROSENTHAL, M.D., Teaching Fellow in Pediatrics.
MURRAY K. ROSENTHAL, M.D., Teaching Fellow in Pediatrics.
DAVID H. SMITH, M.D., Teaching Fellow in Pediatrics.
JOHN T. TRUMAN, M.D., Teaching Fellow in Pediatrics.

Affiliated:

- RAYMOND D. ADAMS, M.D., Bullard Professor of Neuropathology.
TULLY BENARON, M.D., Instructor in Psychiatry.
PHILIP R. DODGE, M.D., Assistant Professor of Neurology at the Massachusetts General Hospital.
JOHN JOSEPH DRISCOLL, M.D., Assistant in Obstetrics and Gynecology.

MEDICAL SCHOOL

ALLAN L. FRIEDLICH, M.D., Instructor in Medicine.

RICHARD GALDSTON, M.D., Assistant in Psychiatry.

GEORGE E. GARDNER, M.D., Clinical Professor of Psychiatry.

FRANK ALBERT HOWARD, M.D., Research Associate in Pharmacology, and Tutor in Medical Science.

JOHN H. LAMONT, M.D., Instructor in Psychiatry.

ARTHUR J. LINENTHAL, M.D., Assistant Clinical Professor of Medicine.

JANET W. McARTHUR, M.D., Assistant Clinical Professor of Medicine.

WILLIAM M. SCHMIDT, M.D., Professor of Maternal and Child Health, H.S.P.H.

MARY L. L. SCHOLL, M.D., Instructor in Neurology.

MORTON N. SWARTZ, M.D., Associate in Medicine at the Massachusetts General Hospital.

THOMAS H. WELLER, M.D., Richard Pearson Strong Professor of Tropical Public Health, H.S.P.H.

PETER H. WOLFF, M.D., Associate in Psychiatry at The Children's Hospital.

REQUIRED COURSES

PEDIATRICS A. *Second Year.*—A few lectures are given during the second year to familiarize the students with the study of children before they come into contact with patients. In this series are discussed the physiological readjustments of neonatal life, the care of the well child, and the history and physical examination of the sick child.

PEDIATRICS B. *Third Year.*—Eleven lectures are given in which the food, and parenteral fluid requirements of infants and children are considered and the important aspects of diseases of childhood presented.

Section teaching: Each section, during its assignment to The Children's Hospital Medical Center for thirty-two days, receives instruction in pediatrics, as well as in the surgery, and orthopaedic surgery of childhood. Each group of three students is assigned to the medical out-patient department and wards for fifteen periods of

HARVARD UNIVERSITY

three hours each, where under the supervision of their instructor they receive actual experience in history-taking, physical examination and the care of infants and children. Conferences and clinics on important aspects of pediatrics form part of the course. One half day per week is devoted to demonstrations and practice in the care of the normal infant and child and other exercises are devoted to pathological conferences and special clinics.

PEDIATRICS C. *Fourth Year.*—The fourth year work consists of a month of instruction, either at the Children's Service of the Massachusetts General Hospital or at The Children's Hospital Medical Center. The students act as clinical clerks on the wards and receive instruction in infectious diseases at the New England Center Hospital once a week. Instruction in pediatrics of the newborn infant is given during the fourth year work in obstetrics at the Boston Lying-in Hospital.

SECOND YEAR	HOURS
Clinical lectures. C.H.M.C. <i>Second half-year.</i>	4

THIRD YEAR	
Clinical lectures. C.H.M.C. <i>First half-year.</i>	8
Section teaching. C.H.M.C. <i>Throughout the year.</i>	63

FOURTH YEAR	
C1. Clinical Clerkship. Dr. JANEWAY and Associates. C.H.M.C.	144
C2. Clinical Clerkship. Dr. TALBOT and Associates. M.G.H.	144
Neonatal Pediatrics. Drs. SMITH, CLIFFORD and Associates, is included in Fourth Year Obstetrics and Gynecology.	

FOURTH YEAR ELECTIVE COURSES

3. Advanced Pediatrics. Drs. JANEWAY, DIAMOND, SMITH and Associates. C.H.M.C. and B.L.I.H. Whole course, all day. Opportunities are offered in Child Health, General Pediatrics, Neoplastic Diseases, Metabolic Disease, Endocrinology, Adolescent Medicine, Neonatal Pediatrics, Neurology, Hematology, and Cardiology.
4. Advanced Pediatrics. Dr. TALBOT and Associates. M.G.H. Whole course, all day. Opportunities are offered in General Pediatrics, Endocrinology and Metabolic Disease, and Neurology.

MEDICAL SCHOOL

5. Child Psychiatry. a. Dr. LAMONT and Associates. M.G.H. Whole course, all day (same course as Psychiatry 9). b. Dr. GARDNER and Associates. C.H.M.C. Judge Baker. Whole course, all day (same course as Psychiatry 11).
7. Infectious Diseases. Dr. WEINSTEIN. N.E.C.H. Whole course, all day.

VOLUNTARY COURSE

30. Family Medicine. Drs. MEYER, DRISCOLL, HOWARD and WOLFF. Tuesday afternoons throughout the year. Limited to 16 third year students.

Obstetrics and Gynecology

DUNCAN E. REID, M.D., A.M. (hon.), William Lambert Richardson Professor of Obstetrics, and Head of the Department of Obstetrics and Gynecology.

GEORGE VAN S. SMITH, M.D., W. H. Baker Professor of Gynecology, and Head of the Division of Gynecology.

HILTON A. SALHANICK, Ph.D., M.D., Professor of Obstetrics and Gynecology at the Beth Israel Hospital (from January 15, 1962).

SOMERS H. STURGIS, M.D., Clinical Professor of Gynecology.

BENJAMIN TENNEY, JR., M.D., Clinical Professor of Obstetrics and Gynecology.

HOWARD ULFELDER, M.D., Clinical Professor of Gynecology.

FRANKLIN F. SNYDER, M.D., A.M. (hon.), Associate Professor of Anatomy and Obstetrics.

DANIEL ABRAMSON, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.

CHRISTOPHER J. DUNCAN, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.

FRANCIS M. INGERSOLL, M.D., Assistant Clinical Professor of Gynecology.

ROBERT W. KISTNER, M.D., Assistant Professor of Obstetrics and Gynecology at the Free Hospital for Women.

HARVARD UNIVERSITY

OLIVE W. SMITH, PH.D., Sc.D. (hon.), Assistant Professor of Biological Chemistry in the Department of Obstetrics and Gynecology at the Free Hospital for Women.

PAUL A. YOUNGE, M.D., Assistant Clinical Professor of Gynecology.

CHARLES L. EASTERDAY, M.D., Associate in Obstetrics and Gynecology at the Boston Lying-in Hospital.

THOMAS H. GREEN, JR., M.D., Clinical Associate in Gynecology.

JOHN F. JEWETT, Clinical Associate in Obstetrics and Gynecology.

ALAN B. LITTLE, M.D., C.M., Associate in Obstetrics and Gynecology, and Tutor in Medical Science.

WILLIAM J. MULLIGAN, M.D., Clinical Associate in Obstetrics and Gynecology.

MELVIN L. TAYMOR, M.D., Clinical Associate in Gynecology.

WALTER S. JONES, M.D., Lecturer on Obstetrics.

HARRY N. ANTONIADES, PH.D., Research Associate in Biological Chemistry in the Department of Obstetrics and Gynecology.

ABRAHAM D. FINEMAN, M.D., Research Associate in Obstetrics and Gynecology.

DAVID H. GALLANT, PH.D., Research Associate in Obstetrics and Gynecology.

JOHN B. GRAHAM, M.D., Research Associate in Gynecology (appointment expired December 31, 1961).

JOHN A. MACLAREN, PH.D., Research Associate in Obstetrics.

ROBERT H. PURDY, PH.D., Research Associate in Obstetrics and Gynecology (from November 1, 1961).

JOHN A. ZANARTU, M.D., Research Associate in Gynecology (appointment expired July 31, 1961).

ROBERT H. BARKER, M.D., Instructor in Obstetrics and Gynecology.

BERTRAM H. BUXTON, JR., M.D., Instructor in Obstetrics.

MARION F. EADES, M.D., Instructor in Obstetrics and Gynecology.

CELSO R. GARCÍA, M.D., Instructor in Obstetrics and Gynecology.

A. GORDON GAULD, M.D., Instructor in Obstetrics and Gynecology.

MEDICAL SCHOOL

LUKE GILLESPIE, M.D., Instructor in Obstetrics and Gynecology.
ARTHUR C. GORBACH, M.D., Instructor in Obstetrics and Gynecology.

WARD I. GREGG, M.D., Instructor in Gynecology.

RICHARD H. GROGAN, M.D., Instructor in Obstetrics and Gynecology.

DANIEL H. HINDMAN, M.D., Instructor in Obstetrics and Gynecology.

CRAWFORD H. HINMAN, M.D., Instructor in Obstetrics and Gynecology.

HERBERT W. HORNE, JR., M.D., Instructor in Obstetrics and Gynecology.

RUBY G. JACKSON, M.D., C.M., Instructor in Obstetrics and Gynecology.

HOWARD N. JACOBSON, M.D., Instructor in Obstetrics and Gynecology, and Tutor in Medical Science.

FRANCIS R. LANE, M.D., Instructor in Obstetrics and Gynecology.

HERBERT T. LEIGHTON, M.D., Instructor in Obstetrics and Gynecology.

JOHN L. NEWELL, M.D., Instructor in Obstetrics and Gynecology.

FRANCIS ROUILLARD, M.D., Instructor in Obstetrics and Gynecology.

KENNETH J. RYAN, M.D., Instructor in Obstetrics and Gynecology (appointment expired August 31, 1961).

LLOYD I. SEXTON, M.D., Instructor in Obstetrics and Gynecology.

BARTLETT H. STONE, M.D., Instructor in Obstetrics and Gynecology.

ARTHUR W. TUCKER, JR., M.D., Instructor in Obstetrics and Gynecology.

ALBERT E. WEINER, M.D., Instructor in Obstetrics and Gynecology.

JAMES H. AUSTIN, M.D., Assistant in Obstetrics and Gynecology.

HERBERT E. BROOKS, JR., M.D., Assistant in Obstetrics and Gynecology.

ROBERT W. BROWN, M.D., Assistant in Obstetrics and Gynecology.

HARVARD UNIVERSITY

RICHARD R. CURTIN, M.D., Assistant in Gynecology.

ROBERT V. DANDROW, JR., M.D., Assistant in Obstetrics and Gynecology.

GERALD R. DENNISON, M.D., Assistant in Obstetrics and Gynecology.

JOHN J. DRISCOLL, M.D., Assistant in Obstetrics and Gynecology.

ROBERT L. JONES, M.D., Assistant in Obstetrics and Gynecology.

ALBERT Y. KEVORKIAN, M.D., Assistant in Gynecology.

THOMAS LEAVITT, JR., M.D., Assistant in Obstetrics and Gynecology.

WILLIAM J. MACDONALD, M.D., Assistant in Obstetrics.

JOSEPH H. PHILLIPS, M.D., Assistant in Gynecology.

CHARLES POTTER, M.D., Assistant in Obstetrics and Gynecology.

WILLIAM A. REID, M.D., Assistant in Obstetrics and Gynecology.

FREDERIC W. RIPLEY, JR., M.D., Assistant in Obstetrics and Gynecology.

PETER G. ROBBINS, M.D., Assistant in Obstetrics and Gynecology.

GEORGE M. RYAN, JR., M.D., Assistant in Obstetrics and Gynecology.

SEYMOUR SACKS, M.D., Assistant in Obstetrics and Gynecology.

LEONARD E. SAFON, M.D., Assistant in Obstetrics and Gynecology.

ARTHUR J. SCHRAMM, M.D., Assistant in Obstetrics and Gynecology.

WESTON F. SEWALL, M.D., Assistant in Obstetrics and Gynecology.

SIDNEY STAHLER, M.D., Assistant in Obstetrics.

JOHN TURNER, 2D, M.D., Assistant in Obstetrics and Gynecology.

CLEMENT YAHIA, M.D., Assistant in Obstetrics and Gynecology.

JOSEPH J. BARLOW, M.D., Research Fellow in Obstetrics and Gynecology (from January 1, 1962).

WILLIAM P. BLACK, M.B., CH.B., Research Fellow in Obstetrics and Gynecology (appointment expired August 31, 1961).

JAMES W. GOODWIN, M.D., Research Fellow in Obstetrics and Gynecology (resigned December 31, 1961).

MEDICAL SCHOOL

- DONALD A. GOSS, M.D., Research Fellow in Obstetrics and Gynecology (appointment expired December 31, 1961).
- JOHN B. JOSIMOVICH, M.D., Research Fellow in Obstetrics and Gynecology (appointment expired September 30, 1961).
- ALBERT F. PARLOW, PH.D., Research Fellow in Physiology in the Department of Obstetrics and Gynecology.
- JOSEPH J. BARLOW, M.D., Teaching Fellow in Obstetrics and Gynecology (appointment expired December 31, 1961).
- THEODORE C. BARTON, M.D., Teaching Fellow in Obstetrics and Gynecology.
- PETER C. BIGLER, M.D., Teaching Fellow in Obstetrics and Gynecology (appointment expired December 31, 1961).
- MALCOLM BROCHIN, M.D., Teaching Fellow in Obstetrics and Gynecology (appointment expired September 30, 1961).
- DICK A. J. BROWN, M.D., Teaching Fellow in Obstetrics and Gynecology.
- THEODORE FAINSTAT, M.D., C.M., Teaching Fellow in Obstetrics and Gynecology.
- CHARLES T. GRIFFITHS, M.D., Teaching Fellow in Obstetrics and Gynecology.
- JOHN W. GROVER, M.D., Teaching Fellow in Obstetrics and Gynecology.
- SAMIR N. HAJJ, M.D., Teaching Fellow in Obstetrics and Gynecology.
- ARTHUR L. HERBST, M.D., Teaching Fellow in Obstetrics and Gynecology.
- JOHN B. JOSIMOVICH, M.D., Teaching Fellow in Obstetrics and Gynecology (from October 1, 1961).
- JAMES P. JOHNSON, M.D., Teaching Fellow in Obstetrics and Gynecology (from October 1, 1961).
- JOHN L. LEWIS, JR., Teaching Fellow in Obstetrics.
- BENJAMIN E. POTTER, M.D., C.M., Teaching Fellow in Obstetrics and Gynecology (appointment expired March 31, 1962).
- RICHARD J. WURTMAN, M.D., Teaching Fellow in Obstetrics and Gynecology.

HARVARD UNIVERSITY

REQUIRED COURSES

Second Year.— Whole class exercises in conjunction with the Departments of Medical Science and of the several clinical disciplines, covering the broad aspects of the physiology of reproduction and of femaleness from infancy to senility. In the second year the Department of Obstetrics and Gynecology contributes to a series of practical exercises in physical diagnosis which introduces the student to basic clinical techniques.

Third Year.— During the year 20 lectures on selected subjects are given at the Harvard Medical School. In addition, one month is devoted to instruction in the outpatient clinics and wards of the Boston City Hospital, the Boston Lying-in Hospital, the Free Hospital for Women, and the gynecologic services of the Massachusetts General Hospital and the Peter Bent Brigham Hospital. Afternoon seminars are conducted to supplement the lectures and outpatient instruction and to foster student participation.

Fourth Year.— The student devotes one month to clinical obstetrics and gynecology at the Boston City Hospital and the Boston Lying-in Hospital. He participates in the management of labor and delivery and takes part in the care of the mother and her infant during their hospital stay. Also, he receives instruction in the interaction of medical and surgical disease in pregnancy and gynecological conditions, and assists at operations.

SECOND YEAR

HOURS

Lectures on the physiology which characterizes the human female.

Drs. REID, SMITH, STURGIS, TENNEY, ULFELDER and Associates. 12

THIRD YEAR

Lectures. Drs. REID, SMITH, STURGIS, TENNEY, ULFELDER and Associates. 20

Practical instruction and seminars in clinical obstetrics and gynecology. 116

FOURTH YEAR

Clinical obstetrics and gynecology. Drs. REID, TENNEY and Associates. 144

MEDICAL SCHOOL

FOURTH YEAR ELECTIVE COURSES

Gynecology. The fourth year student may devote an elective month to gynecology at the Free Hospital for Women, the Massachusetts General Hospital, or the Peter Bent Brigham Hospital. This consists of case teaching, whose objective is to correlate medical science and the several clinical disciplines with the diagnosis and management of the diseases of women. The student will be given the opportunity to follow gynecologic patients completely through their hospital course from the pre-operative work-up, through the operative experience, and on the wards to their discharge. He will be given the opportunity to review the basic disciplines of physiology and endocrinology, through reading or in the laboratory, as they apply to the material. Drs. SMITH, STURGIS and ULFELDER. Whole course, all day.

Obstetrics. Providence Lying-in Hospital. Dr. WALTER JONES and Associates. One month.

Preventive Medicine

DAVID D. RUTSTEIN, M.D., Professor of Preventive Medicine, and Head of the Department.

DEAN A. CLARK, M.D., Clinical Professor of Preventive Medicine.

MARCEL-PAUL SCHUTZENBERGER, M.D., Visiting Professor of Preventive Medicine (from October 1, 1961).

FRANCIS L. MUSSELLS, M.D., C.M., Lecturer on Preventive Medicine.

OSLER L. PETERSON, M.D., Visiting Lecturer on Preventive Medicine.

WILLIAM B. KANNEL, M.D., Associate in Preventive Medicine.

JOSEPH STOKES, 3RD, M.D., Associate in Preventive Medicine. (resigned September 30, 1961).

MURRAY EDEN, PH.D., Lecturer on Preventive Medicine.

ALEXANDER M. BURGESS, JR., M.D., Research Associate in Preventive Medicine.

VIRGINIA A. CLARK, A.M., Research Associate in Preventive Medicine (resigned November 30, 1961).

HARVARD UNIVERSITY

THEODORE COLTON, Sc.D., Research Associate in Preventive Medicine (from October 1, 1961).

JOHN M. NEWELL, S.D., Research Associate in Preventive Medicine.

HERMAN J. GEIGER, M.D., Instructor in Preventive Medicine.

MARTIN D. KELLER, M.D., Ph.D., Instructor in Preventive Medicine.

WINCENTY CZARNIECKI, M.D., Research Fellow in Preventive Medicine (from September 1, 1961).

Affiliated:

ERNEST M. BARSAMIAN, M.D., Instructor in Surgery.

WILLIAM G. COCHRAN, M.A., A.M. (hon.), Professor of Statistics, H.U.

FREMONT J. LYDEN, A.B., M.P.A., Ph.D., Research Fellow in the Graduate School of Public Administration.

CONRAD WESSELHOEFT, M.D., Visiting Lecturer on Infectious Diseases, S.P.H.

JANE WORCESTER, Dr.P.H., Associate Professor of Biostatistics, S.P.H.

The preventive aspects of medicine and its various specialties are taught in all departments of the Medical School, and arrangements are made for the integration of such teaching with the more formal teaching in the required course in preventive medicine. An effort is made to stress those aspects of preventive medicine which concern the practicing physician, rather than those which concern the public health officer.

REQUIRED COURSES

QUANTITATIVE METHODS IN MEDICINE. *Second Year.*—Professor COCHRAN and Associates. Twelve lectures and two laboratory seminar periods. An introduction to statistical reasoning in the evaluation of data is offered as part of the course entitled "Growth and Development." The statistical teaching includes a description of the types of data encountered in the medical literature, elementary probability theory, problems of sampling and the logical basis for drawing conclu-

MEDICAL SCHOOL

sions from evidence. Assistance in this teaching will be given by members of several of the departments in the School of Medicine and of the Department of Biostatistics in the School of Public Health.

PREVENTIVE MEDICINE A. *Third Year.*—The course in preventive medicine consists of clinics, lectures and symposia. The preventive aspects of clinical medicine are correlated with information in the fields of epidemiology, biostatistics, social medicine, occupational medicine, medical economics and environmental sanitation.

PREVENTIVE MEDICINE C. *Fourth Year.*—A Health Resources Survey, evaluating community facilities for the total medical care of specified patients, is required of all students.

THIRD YEAR

HOURS

Clinics, symposia and lectures. Dr. RUTSTEIN and Associates, in cooperation with representatives of other departments.	85
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FOURTH YEAR

Health Resources Survey and individual student conference.	50
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FOURTH YEAR ELECTIVE COURSES

1. Advanced work in Preventive Medicine and Epidemiology. Dr. RUTSTEIN and Associates. This includes opportunity for one month's work in the Division of Social Medicine, Montefiore Hospital, New York City.
2. Man-made Diseases. Dr. HARDY and Associates. M.G.H. and M.I.T. Whole course, all day. Limited to one student a month.

VOLUNTARY COURSE

31. Design of Clinical Investigation. Dr. RUTSTEIN, Professor COCHRAN, and Associates. Eight 2 hour seminars in March and April. Open to third and fourth year students (limited to fifteen students). Seminars will be conducted on the design of observational and experimental studies in clinical research. Emphasis will be placed on prophylactic and clinical trials. Conference subjects will include definition of the disease or entity under study, methods of sampling, selection of controls and use of patients as their own con-

HARVARD UNIVERSITY

trols, ethical considerations, adequacy of numbers of subjects and of observations, criteria for the evaluation of results, and methods of analyzing and interpreting data.

Surgery

EDWARD D. CHURCHILL, M.D., DR. (hon.), S.D. (hon.), LL.D. (hon.), John Homans Professor of Surgery, and Head of the Department at the Massachusetts General Hospital.

JACOB FINE, M.D., Professor of Surgery at the Beth Israel Hospital, and Head of the Department at the Beth Israel Hospital.

ROBERT E. GROSS, M.D., D.Sc. (hon.), William E. Ladd Professor of Child Surgery, and Head of the Department at The Children's Hospital.

FRANCIS D. MOORE, M.D., Moseley Professor of Surgery, Head of the Department at the Peter Bent Brigham Hospital, and Secretary to the Departments of Surgery.

HENRY K. BEECHER, M.D., Henry Isaiah Dorr Professor of Research and Teaching in Anaesthetics and Anaesthesia.

J. HARTWELL HARRISON, M.D., Clinical Professor of Genito-Urinary Surgery.

DONALD D. MATSON, M.D., Clinical Professor of Surgery.

LEROY D. VANDAM, M.D., Clinical Professor of Anaesthesia.

RICHARD WARREN, M.D., Clinical Professor of Surgery.

MARSHALL K. BARTLETT, M.D., Associate Clinical Professor of Surgery.

OLIVER COPE, M.D., DR. (hon.), Associate Professor of Surgery.

EDWARD HAMLIN, JR., M.D., Associate Clinical Professor of Surgery.

DWIGHT E. HARKEN, M.D., Associate Clinical Professor of Surgery.

FRANCIS D. INGRAHAM, M.D., Associate Professor of Surgery at The Children's Hospital.

WYLAND F. LEADBETTER, M.D., Associate Clinical Professor of Surgery.

RICHARD H. SWEET, M.D., Associate Clinical Professor of Surgery (died January 11, 1962).

MEDICAL SCHOOL

- WILLIAM H. SWEET, M.D., D.Sc. (hon.), Associate Professor of Surgery at the Massachusetts General Hospital.
- CARL W. WALTER, M.D., Associate Clinical Professor of Surgery.
- CLAUDE E. WELCH, M.D., Associate Clinical Professor of Surgery.
- EDWARD B. BENEDICT, M.D., Assistant Clinical Professor of Surgery.
- EDGAR A. BERING, JR., M.D., Assistant Clinical Professor of Surgery.
- THOMAS W. BOTSFORD, M.D., Assistant Clinical Professor of Surgery.
- CHILTON CRANE, M.D., Assistant Clinical Professor of Surgery.
- EDWARD D. FRANK, M.D., Assistant Professor of Surgery, and Tutor in Medical Science.
- HOWARD A. FRANK, M.D., Assistant Professor of Surgery at the Beth Israel Hospital, and Tutor in Surgery.
- SYLVESTER B. KELLEY, M.D., Assistant Clinical Professor of Surgery.
- WALTER S. KERR, JR., M.D., Assistant Clinical Professor of Surgery.
- DONALD W. MACCOLLUM, M.D., Assistant Clinical Professor of Surgery.
- WILLIAM V. McDERMOTT, JR., M.D., Assistant Clinical Professor of Surgery.
- GEORGE L. NARDI, M.D., Assistant Clinical Professor of Surgery.
- MELVIN P. OSBORNE, M.D., Assistant Clinical Professor of Surgery, and Acting Head of the Department at the Boston City Hospital.
- WILLIAM H. PEARLMAN, PH.D., Assistant Professor of Biological Chemistry in the Department of Surgery.
- GEORGE C. PRATHER, M.D., Assistant Clinical Professor of Surgery.
- THOMAS B. QUIGLEY, M.D., Assistant Clinical Professor of Surgery.
- JOHN W. RAKER, M.D., Assistant Clinical Professor of Surgery.
- J. GORDON SCANNELL, M.D., Assistant Clinical Professor of Surgery.

HARVARD UNIVERSITY

- ROBERT M. SMITH, M.D., Assistant Clinical Professor of Anaesthesia.
- DONALD P. TODD, M.D., Assistant Clinical Professor of Anaesthesia.
- WILLIAM R. WADDELL, M.D., Assistant Clinical Professor of Surgery (resigned August 31, 1961).
- WALTER R. WEGNER, M.D., Assistant Clinical Professor of Surgery.
- CHESTER W. WHITE, JR., Assistant Professor of Anaesthesia at the Boston Lying-in Hospital (resigned July 31, 1961).
- AUGUSTUS THORNDIKE, M.D., Lecturer on Surgery.
- HENRY T. BALLANTINE, JR., M.D., Clinical Associate in Surgery.
- BENJAMIN A. BARNES, M.D., Clinical Associate in Surgery.
- JOHN R. BROOKS, M.D., Clinical Associate in Surgery.
- JOHN F. BURKE, M.D., Clinical Associate in Surgery, and Tutor in Medical Science.
- BRADFORD CANNON, M.D., Clinical Associate in Surgery.
- SAMUEL GILMAN, M.D., Clinical Associate in Anaesthesia.
- HERMES C. GRILLO, M.D., Clinical Associate in Surgery.
- PHILLIPS HALLOWELL, M.D., Clinical Associate in Anaesthesia.
- LOUIS HERMANSON, M.D., Clinical Associate in Surgery.
- ANDREW G. JESSIMAN, M.B., CH.B., Clinical Associate in Surgery.
- JOHN M. KINNEY, M.D., Associate in Surgery, and Henry E. Warren Fellow in Surgery.
- LUTHER A. LONGINO, M.D., Clinical Associate in Surgery.
- S. RICHARD MUELLNER, M.D., Clinical Associate in Surgery.
- JOSEPH E. MURRAY, M.D., Clinical Associate in Surgery.
- W. BRADFORD PATTERSON, M.D., Clinical Associate in Surgery.
- GEORGE S. RICHARDSON, M.D., Clinical Associate in Surgery.
- ALEXANDER M. RUTENBURG, M.D., Associate in Surgery at the Beth Israel Hospital, and Tutor in Medical Science.
- ROBERT S. SHAW, M.D., Associate in Surgery at the Massachusetts General Hospital.
- GENE M. SMITH, PH.D., Associate in Psychology in Anaesthesiology at the Massachusetts General Hospital.
- GEORGE W. B. STARKEY, M.D., Clinical Associate in Surgery.

MEDICAL SCHOOL

- HERBERT S. TALBOT, M.D., Clinical Associate in Surgery.
SHINICHIRO ENDO, M.D., Visiting Lecturer on Surgery (from September 1, 1961).
KURT WIEMERS, M.D., Visiting Lecturer on Anaesthesia.
HENRY H. FAXON, M.D., Lecturer on Surgery.
JAMES E. ANLIKER, PH.D., Research Associate in Anaesthesia.
CHARLES A. APFFEL, M.D., Research Associate in Surgery.
HECTOR A. CASTELLANOS, M.D., Research Associate in Surgery.
C. LLOYD CLAFF, A.B., S.D. (hon.), Research Associate in Surgery.
SAUL I. COHEN, PH.D., Research Associate in Surgery.
JULIUS A. GOLDBARG, M.D., Research Associate in Surgery.
WEI Y. HUANG, PH.D., Research Associate in Surgery.
RUTH B. KUNDSIN, SC.D., Research Associate in Surgery.
PETER B. LAMBERT, M.B., CH.B., Research Associate in Surgery.
ESTEBAN P. PINEDA, M.D., Research Associate in Surgery.
SELMA H. RUTENBURG, M.D., Research Associate in Surgery.
ALBERT H. SOLOWAY, PH.D., Research Associate in Surgery.
ARTHUR L. ABRAMS, M.D., Instructor in Anaesthesia.
JOHN G. ADAMS, JR., Instructor in Anaesthesia (from October 1, 1961).
ERNEST M. BARSAMIAN, M.D., Instructor in Surgery.
HENRIK H. BENDIXEN, M.D., Instructor in Anaesthesia.
WILLIAM F. BERNHARD, M.D., Instructor in Surgery.
HARRISON BLACK, M.D., Instructor in Surgery.
HATHORN P. BROWN, M.D., Instructor in Surgery.
JOHN W. CHAMBERLAIN, M.D., Instructor in Surgery.
JOHN DAVIDSON CONSTABLE, M.D., Instructor in Surgery.
ROBERT E. DESAUTELS, M.D., Instructor in Surgery.
GORDON A. DONALDSON, M.D., Instructor in Surgery.
WILLIAM S. EASTON, M.D., Instructor in Anaesthesia.
ALBERT J. FINCK, M.D., Instructor in Anaesthesia.
WILLIAM F. FLYNN, M.D., Instructor in Surgery.
PHILIP S. FOISIE, M.D., Instructor in Surgery.
EDWARD W. FRIEDMAN, M.D., Instructor in Surgery.
F. THOMAS GEPHART, M.D., Instructor in Surgery.

HARVARD UNIVERSITY

EDWARD B. GRAY, JR., M.D., Instructor in Surgery.

PAUL F. GRYSKA, M.D., Instructor in Surgery.

THOMAS K. HARDY, M.B., CH.B., Instructor in Anaesthesia (appointment expired December 31, 1961).

WILLIAM H. HENDREN, 3RD., Instructor in Surgery.

CARL S. HOAR, JR., M.D., Instructor in Surgery.

STEPHEN J. HOYE, M.D., Instructor in Surgery.

CHARLES E. HUGGINS, M.D., Instructor in Surgery, and Tutor in Medical Science.

LEE G. KENDALL, M.D., Instructor in Surgery.

RAYMOND N. KJELLBERG, M.D., Instructor in Surgery.

CHARLES A. LAMB, M.D., Instructor in Surgery.

GUY W. LEADBETTER, M.D., Instructor in Surgery.

SAMUEL LOWIS, M.D., Instructor in Surgery.

EDWARD M. MAHONEY, D.M.D., M.D., Instructor in Surgery.

PHILLIP S. MARCUS, M.D., Instructor in Anaesthesia.

VERNON H. MARK, M.D., Instructor in Surgery.

JOHN B. MCKITTRICK, M.D., Instructor in Surgery.

CHARLES G. MIXTER, JR., M.D., Instructor in Surgery.

LOUIS H. NASON, M.D., Instructor in Surgery.

ROBERT A. NEWTON, M.D., Instructor in Surgery.

EDWARD C. PARKHURST, M.D., Instructor in Surgery.

LOUIS N. PERNOKAS, M.D., Instructor in Surgery.

ELLISON C. PIERCE, JR., M.D., Instructor in Anaesthesia.

JOHN V. PIKULA, M.D., Instructor in Surgery.

HENNING PONTOPPIDAN, M.D., Instructor in Anaesthesia.

WILLIAM C. QUINBY, JR., M.D., Instructor in Surgery.

CHESTER B. ROSOFF, M.D., Instructor in Surgery, and Tutor in Medical Science.

JOHN L. ROWBOTHAM, M.D., Instructor in Surgery.

JOSEPH F. RUSCIO, M.D., Instructor in Anaesthesia (from January 1, 1962).

EDWIN W. SALZMAN, M.D., Instructor in Surgery, and Tutor in Medical Science.

SAMUEL R. SCHUSTER, M.D., Instructor in Surgery.

BERNARD R. SEARS, M.D., Instructor in Surgery.

MEDICAL SCHOOL

- ARNOLD L. SEGEL, M.D., Instructor in Surgery.
FRANK G. SHEDDAN, JR., M.D., Instructor in Surgery.
ARNOLD STARR, M.D., Instructor in Surgery.
JOHN B. STETSON, M.D., Instructor in Anaesthesia.
WARREN J. TAYLOR, M.D., Instructor in Surgery.
IAN R. VERNER, M.B., CH.B., Instructor in Anaesthesia (appointment expired August 31, 1961).
JESS B. WEISS, M.D., Instructor in Anaesthesia.
KENNETH J. WELCH, M.D., Instructor in Surgery.
H. BROWNELL WHEELER, M.D., Instructor in Surgery.
FRANK C. WHELOCK, JR., M.D., Instructor in Surgery.
MALVIN F. WHITE, D.M.D., M.D., Instructor in Surgery.
EARLE W. WILKINS, JR., M.D., Instructor in Surgery.
JOHN A. WILLIAMS, M.D., Instructor in Surgery.
RICHARD E. WILSON, M.D., Instructor in Surgery, and Tutor in Medical Science.
MASAO YATSUHASHI, M.D., Instructor in Surgery (from November 1, 1961).
HART ACHENBACH, M.D., Assistant in Surgery.
JOHN R. ALGIRD, M.D., Assistant in Anaesthesia.
EUGENE C. ALVER, M.D., Assistant in Anaesthesia.
RICHARD C. AUSTIN, M.D., Assistant in Surgery.
GEORGE E. BATTIT, M.D., Assistant in Anaesthesia.
GLENN E. BEHRINGER, M.D., Assistant in Surgery.
CHARLES B. BURBANK, M.D., Assistant in Surgery.
EDWIN L. CARTER, M.D., Assistant in Surgery.
ARNOLD H. COLODNY, M.D., Assistant in Surgery.
JOSEPH W. COPEL, M.D., Assistant in Surgery.
DEAN CROCKER, M.A., Assistant in Anaesthesia.
JULIE S. CROCKER, M.D., Assistant in Anaesthesia.
BRIAN C. DALTON, M.D., Assistant in Anaesthesia.
CHESTER J. DEXTER, M.D., Assistant in Surgery.
ROBERT F. DINE, M.D., Assistant in Surgery.
LAWRENCE D. EGBERT, M.D., Assistant in Anaesthesia (from August 15, 1961).
JULIUS E. GOLDBLATT, M.D., Assistant in Surgery.

HARVARD UNIVERSITY

- STANLEY K. GORDON, M.D., Assistant in Surgery.
HAROLD L. GREENBERG, D.M.D., M.D., Assistant in Surgery.
EUGENE A. GURALNICK, M.D., Assistant in Surgery.
HANNIBAL HAMLIN, M.D., Assistant in Surgery.
IRAD B. HARDY, JR., M.D., Assistant in Surgery.
JOHN M. HEAD, M.D., Assistant in Surgery.
JOHN HEDLEY-WHITE, M.B., CH.B., Assistant in Anaesthesia.
DOROTHY K. HEERDEGEN, M.D., Assistant in Anaesthesia.
ZOLMAN HELFAND, D.M.D., M.D., Assistant in Surgery.
HYMAN A. HERSHMAN, M.D., Assistant in Surgery.
CLEMENT A. HIEBERT, M.D., Assistant in Surgery.
ALFRED T. JOSEPH, D.M.D., M.D., Assistant in Surgery.
EDWARD KAPLAN, M.D., Assistant in Surgery.
LEO T. KELLY, M.D., Assistant in Anaesthesia.
BENJAMIN J. KRIPKE, M.D., Assistant in Anaesthesia.
SUSANNE J. LAMBIN, M.D., Assistant in Anaesthesia.
MYRON B. LAVER, M.D., Assistant in Anaesthesia.
FEUNG B. LEE, M.D., Assistant in Surgery.
ARMAND A. LEFEMINE, M.D., Assistant in Surgery.
HOWARD J. LEWENSTEIN, M.D., Assistant in Surgery.
JOHN B. LLOYD, M.D., Assistant in Surgery.
THOMAS E. MACNAMARA, M.B., CH.B., Assistant in Anaesthesia.
DAVID E. MARCELLO, JR., M.D., Assistant in Surgery (from April
1, 1962).
KEITH MERRILL, JR., M.D., Assistant in Surgery.
CARROLL C. MILLER, M.D., Assistant in Surgery.
ELLIOTT V. MILLER, M.D., Assistant in Anaesthesia.
EDWARD T. O'HARA, M.D., Assistant in Surgery.
ROBERT G. OJEMANN, M.D., Assistant in Surgery.
ANNE W. PHILLIPS, M.D., Assistant in Surgery.
IRA S. PIDGEON, M.D., C.M., Assistant in Surgery.
WILLIAM S. RACHLIN, M.D., Assistant in Surgery.
JUDSON G. RANDOLPH, M.D., Assistant in Surgery.
GRANT "V" RODKEY, M.D., Assistant in Surgery.
WILLIAM P. ROGERS, JR., M.D., Assistant in Surgery.
LEON ROSENFELD, M.D., Assistant in Surgery.

MEDICAL SCHOOL

- SPIROS P. SARRIS, M.D., Assistant in Surgery.
JACOB B. SHAMMASH, M.D., Assistant in Surgery (from October 1, 1961).
PAUL B. SHAPIRO, M.D., Assistant in Surgery.
ROBERT SHAPIRO, M.D., Assistant in Surgery.
JOHN SHILLITO, JR., M.D., Assistant in Surgery.
ELIOT M. SLATER, M.D., Assistant in Anaesthesia.
ALBERT M. STARR, M.D., Assistant in Surgery.
JUDITH A. TASSIE, B.S., Assistant in Anaesthesia.
HERMAN TURNDORF, M.D., Assistant in Anaesthesia (from August 15, 1961).
PHILIP H. WALKER, M.D., Assistant in Surgery.
SARITA G. WALZER, M.D., Assistant in Anaesthesia.
TERENCE P. ABBISS, PH.D., Research Fellow in Surgery (from October 15, 1961).
GIORGIO AGRIFOGLIO, M.D., Research Fellow in Surgery (appointment expired August 31, 1961).
MODHAFFER K. AL-CHOKHACHY, M.D., Research Fellow in Surgery (from August 1, 1961).
GUY P. J. ALEXANDRE, M.D., Research Fellow in Surgery (from October 1, 1961).
BARRY ALTMAN, M.B., B.S., Research Fellow in Surgery (appointment expired October 15, 1961).
JOHN ANDERSON, M.B., CH.B., Research Fellow in Surgery (appointment expired August 31, 1961).
JAIME ARREGUI, M.D., Research Fellow in Surgery.
SOCRATES C. ATHANASSIADES, M.D., PH.D., Research Fellow in Surgery (resigned December 31, 1961).
LUCIANO BASAURI, M.D., Research Fellow in Surgery.
HECTOR V. BEREZOWSKI, M.D., Research Fellow in Surgery.
ALAN G. BIRTCH, M.D., Research Fellow in Surgery.
AHMET Y. BOZER, M.D., Research Fellow in Surgery (resigned August 31, 1961).
MAYO E. BROWN, M.S., Research Fellow in Surgery.
ALBERT A. BUYTENDORP, M.D., Research Fellow in Surgery (from December 1, 1961).

HARVARD UNIVERSITY

- ROY Y. CALNE, M.B., B.S., Research Fellow in Surgery (appointment expired September 30, 1961).
- KHAGENDRA N. CHATTERJEE, M.B., Research Fellow in Surgery.
- RONALD G. CLARK, M.B., CH.B., Research Fellow in Surgery.
- MANFRED L. COHEN, M.D., Research Fellow in Surgery.
- JOHN S. T. COX, M.B., B.S., Research Fellow in Surgery (appointment expired July 31, 1961).
- DAVID L. CROSBY, M.B., CH.B., Research Fellow in Surgery (from November 1, 1961).
- LIONEL E. DORFMAN, M.D., Research Fellow in Surgery.
- EDGAR G. EUCHBAUM, M.D., Research Fellow in Surgery (from October 1, 1961).
- GIANFRANCO FRITTELLI, M.D., Research Fellow in Surgery (from September 1, 1961).
- JOSEPH H. Y. FUNG, M.D., Research Fellow in Surgery (appointment expired December 31, 1961).
- ROLANDO GOMEZ, M.D., Research Fellow in Surgery.
- MALCOLM H. GOUGH, M.B., B.S., Research Fellow in Surgery.
- ERNEST GRABLE, M.D., Research Fellow in Surgery.
- JACOBUS M. GREEP, M.D., Research Fellow in Surgery.
- HANS HACKER, M.D., Research Fellow in Surgery (appointment expired December 31, 1961).
- PAUL D. HARRIS, M.D., Research Fellow in Surgery (appointment expired December 31, 1961).
- YOICHI HASHIZUME, M.D., Research Fellow in Surgery (from October 1, 1961).
- MURRAY H. HELFANT, M.D., Research Fellow in Surgery (appointment expired December 31, 1961).
- JOHN T. HOBBS, M.B., B.S., Research Fellow in Surgery.
- CHRISTOPHER J. W. HUSTON, M.B., CH.B., Research Fellow in Surgery.
- KOICHI ISHIKAWA, M.D., Research Fellow in Surgery.
- JACOB ISRAEL, M.D., Research Fellow in Surgery.
- JOHN A. JACOBNEY, M.D., Research Fellow in Surgery.
- KEWAL K. JAIN, M.D., Research Fellow in Surgery.

MEDICAL SCHOOL

- GEORGES H. JANTET, M.B., B.S., Research Fellow in Surgery (from October 1, 1961).
- GODREJ S. KARAI, M.B., Research Fellow in Surgery (appointment expired December 31, 1961).
- KIMIKO KATSUHARA, M.D., PH.D., Research Fellow in Surgery.
- EARL R. KIERNAN, M.D., Research Fellow in Surgery (appointment expired December 31, 1961).
- YUKIO KUBOTA, M.D., Research Fellow in Anaesthesia (appointment expired October 31, 1961).
- BERTRAND LITWIN, M.D., Research Fellow in Surgery.
- HENRY B. C. LOW, M.D., Research Fellow in Surgery (resigned August 31, 1961).
- STEVEN LUNZER, M.D., Research Fellow in Surgery.
- JAMES P. LYTHGOE, M.B., CH.B., Research Fellow in Surgery (appointment expired October 15, 1961).
- VERNON C. MARSHALL, M.B., B.S., Research Fellow in Surgery (from October 1, 1961).
- J. ADRIAN P. MARSTON, M.B., CH.B., Research Fellow in Surgery (from September 1, 1961).
- IAN F. McNEILL, M.B., B.S., Research Fellow in Surgery.
- YULI MIYAZAKI, M.D., Research Fellow in Surgery (from October 1, 1961).
- ALFRED A. D. MOORE, M.B., B.S., Research Fellow in Surgery.
- NEJAT NARTER, M.D., Research Fellow in Surgery.
- CARL G. NILSSON, M.D., Research Fellow in Surgery.
- HIROSHI OUCHI, M.D., Research Fellow in Surgery (appointment expired August 31, 1961).
- CARLO PALMERIO, M.D., Research Fellow in Surgery.
- LOUIS FRANK PLZAK, JR., M.D., Research Fellow in Surgery (appointment expired September 30, 1961).
- ALVARO A. RABELO, JR., M.D., Research Fellow in Surgery (appointment expired October 15, 1961).
- C. FRANCIS ROE, M.B., CH.B., Research Fellow in Surgery (from February 1, 1962).
- HOWARD S. RUBENSTEIN, M.D., Research Fellow in Surgery.

HARVARD UNIVERSITY

- GUSTAVE A. RUIZ-AGUILAR, M.D., Research Fellow in Surgery (appointment expired December 31, 1961).
- MAHMOUD SADRIEH, M.D., Research Fellow in Surgery (appointment expired August 31, 1961).
- OSAMU SATO, M.D., Research Fellow in Surgery.
- JUSTUS S. SAURBREY, M.D., Research Fellow in Surgery.
- RAMESHCHANDRA C. SHAH, M.B., B.S., Research Fellow in Surgery (appointment expired October 31, 1961).
- JEAN C. SIEGFRIED, M.D., Research Fellow in Surgery (from January 1, 1962).
- EDGAR E. SMITH, PH.D., Research Fellow in Surgery.
- CARL H. SUTTON, M.D., Research Fellow in Surgery.
- J. LEONEL VILLAVICENCIO, M.D., Research Fellow in Surgery (appointment expired February 28, 1962).
- JOHN P. WILLIAMS, M.B., CH.B., Research Fellow in Surgery (appointment expired August 31, 1961).
- LAWRENCE I. ZAROFF, M.D., Research Fellow in Surgery.
- ARTHUR E. BAUE, M.D., Teaching Fellow in Surgery (appointment expired December 31, 1961).
- SOLOMON BERG, B.Sc., Teaching Fellow in Surgery (appointment expired December 31, 1961).
- DAVID L. COLLINS, M.D., C.M., Teaching Fellow in Surgery.
- JOHN T. GARNER, M.D., Teaching Fellow in Surgery.
- GARY E. GATHMAN, M.D., Teaching Fellow in Surgery.
- ROBERT J. GREENE, M.D., Teaching Fellow in Surgery.
- MICHIKO HARANO, M.D., Teaching Fellow in Anaesthesia.
- FRANCIS J. KENNEY, JR., M.D., Teaching Fellow in Surgery (appointment expired September 30, 1961).
- DAVID M. KLEIN, M.D., Teaching Fellow in Surgery (appointment expired December 31, 1961).
- SABIN S. LEVENSON, M.D., Teaching Fellow in Surgery.
- RONALD A. MALT, M.D., Teaching Fellow in Surgery.
- DAVID E. MARCELLO, JR., M.D., Teaching Fellow in Surgery (from January 1 through March 31, 1962).
- VERNON H. REYNOLDS, M.D., Arthur Tracy Cabot Teaching Fellow in Surgery (from August 1, 1961).

MEDICAL SCHOOL

LESLIE E. RUDOLF, M.D., Arthur Tracy Cabot Teaching Fellow in Surgery (appointment expired July 31, 1961).

HENRY M. WISE, M.D., Teaching Fellow in Surgery (from January 1, 1962).

NICHOLAS T. ZERVAS, M.D., Teaching Fellow in Surgery (from January 1, 1962).

Affiliated:

ADELBERT AMES, 3D, M.D., Research Associate in Biological Chemistry.

ASENATH PETRIE, PH.D., Research Associate in Psychology in the Department of Psychiatry.

REQUIRED COURSES

Instruction will be given by amphitheatre clinics, lectures, and conferences, together with section teaching in the wards and out-patient departments of the hospitals and in the surgical research laboratories.

SURGERY A. *Second Year.*—The course is designed to correlate preclinical sciences with the basic principles underlying the surgical management of injury and disease. The Department of Surgery joins with the Department of Medicine in a series of exercises in physical diagnosis and laboratory medicine to offer unified instruction in case taking. Practical exercises are offered that introduce the student to basic surgical techniques.

SURGERY B. *Third Year.*—The course is conducted in the out-patient departments and wards of the hospitals affiliated with the School. The students are divided into three groups, each group in rotation being apportioned to one of the hospitals affiliated with the School for instruction in surgery over a sixty-four-day period. During this period they will study general surgery and urology at the hospital to which they are assigned, and will also receive instruction in gynecology at the Free Hospital for Women and the Massachusetts General Hospital and in Otolaryngology at the Massachusetts Eye and Ear Infirmary. Instruction in the surgery of children is given during the pediatric section work at The Children's Hospital Medical Center. Opportunity for experience in surgical operative techniques

HARVARD UNIVERSITY

is offered in Voluntary Course 32 that may be taken in conjunction with section work.

SURGERY C. *Fourth Year.*—A series of not less than two months as clinical clerk in the surgical wards of the B.I.H., B.C.H., M.G.H. or P.B.B.H. is required of each student.

During the fourth year, students will be assigned to one of the departments of anaesthesia associated with the medical school. The time spent shall be sufficient to provide an introduction to the problems and possibilities of anaesthesia as a specialty of medicine. The student will acquire some knowledge of oxygen therapy, of pre- and post-operative anaesthetic care and will administer, under supervision, the commonly used anaesthetics to patients. Factors of importance in the support and resuscitation of unconscious persons will be emphasized. This experience is designed to lead to an understanding of problems associated with the safe management of individuals handicapped by pre-existing disease, by anaesthesia, and by surgery.

SECOND YEAR

HOURS

Lectures and demonstrations on the fundamental aspects of clinical surgery and anaesthesia. Drs. CHURCHILL, BEECHER, MOORE, and Associates. M.G.H. and P.B.B.H. *Second half-year.*

Section work, case taking, lectures and demonstrations on the physical diagnosis of surgical disease in conjunction with the Department of Medicine. B.I.H., B.C.H., M.G.H., and P.B.B.H. *Each student has twenty-four exercises.*

84

THIRD YEAR

Amphitheatre lectures. Drs. CHURCHILL, MOORE, and Associates. *Once a week throughout the year.*

38

Exercises in sections in the wards and out-patient departments at the B.I.H., M.G.H., and P.B.B.H. *Each section has thirty-two exercises of two and a half hours each and twenty-one exercises of three hours each.*

141

Genito-Urinary Surgery. Section work. B.I.H., M.G.H., and P.B.B.H. *Each student has ten or eleven two-and-a-half hour exercises.*

27

MEDICAL SCHOOL

HOURS

Children's Surgery. Section work. C.H.M.C. *Each student has four one-and-a-half hour exercises, eleven one-hour exercises, and five two-hour exercises.*

27

FOURTH YEAR

Clinical Clerkship: M.G.H. (Surgery C₁, Dr. CHURCHILL and Associates); B.C.H. (Surgery C₂, Dr. OSBORNE and Associates); P.B.B.H. (Surgery C₃, Dr. MOORE and Associates); B.I.H. (Surgery C₄, Dr. FINE and Associates).

288

FOURTH YEAR ELECTIVE COURSES

5. Children's Surgery. Dr. GROSS and Associates. C.H.M.C. Whole course, all day. Limited to two students each month.
6. Vascular and Gastrointestinal Surgery. Dr. WARREN and Associates. W.R.V.A.H. Whole course, all day. Limited to two students each month.
8. Genito-Urinary Surgery. Dr. HARRISON. P.B.B.H. Whole course, all day. Limited to two students each month.
9. Anaesthesia. Dr. BEECHER. M.G.H. or Dr. VANDAM, P.B.B.H. Whole course, all day. Attendance limited. Application to be made in person.
10. Neurosurgery. Dr. J. C. WHITE and Associates. M.G.H. or Drs. INGRAHAM and MATSON, C.M.C. and P.B.B.H. Whole course, all day, limited to two students each month. Clinical clerkship on the neurosurgical wards.
11. General Surgery. Dr. OSBORNE and Associates. Boston City Hospital. Whole course, all day for one or two months. Limited to five clinical clerks each month on wards and operating rooms of the Harvard Surgical Unit and the Accident Floor. As members of the Service, students will take part in patient-care and in the ward rounds and conferences.
20. Surgical Investigation. Dr. MOORE and Associates. P.B.B.H. and H.M.S. Whole course, all day. Limited to two students each month. Extensive investigative opportunity is offered, particularly in the fields of post-traumatic metabolism (Dr. MOORE), energy exchange (Dr. KINNEY), tissue transplantation (Drs. MURRAY, STURGIS, WILSON, BROOKS), and cardiac surgery (Dr. HARKEN).

HARVARD UNIVERSITY

21. Surgical Investigation. Dr. CHURCHILL and Associates. M.G.H. Whole course, all day.
23. Surgical Investigation. Dr. FINE and Associates, B.I.H. Whole course, all day.

VOLUNTARY COURSES

32. Surgical Technique. Members of the third year class may register for the following courses in surgical technique at the hospital to which they have been assigned for their section work.
 1. Operative Technique. M.G.H. Dr. C. MIXTER, JR., and Associates. Thursday afternoons throughout the year. Surgical Laboratories. May only be taken coincidentally with section work.
 2. Operative Technique. P.B.B.H. Dr. WALTER, Dr. MURRAY and Associates. Thursday afternoons November through January. Laboratory for Surgical Research, H.M.S. Students not assigned to the P.B.B.H. may take the course if vacancies occur.
 3. Operative Technique. B.I.H. Dr. FINE and Associates. Thursday afternoons, October through November. Surgical Research Laboratory.
34. Athletic Injuries, Diagnosis and Management. Drs. THORNDIKE, QUIGLEY and Associates. Tuesday and Thursday afternoons for seven weeks in September, October and November. Open to second and third year students. Limited to a total of eight students.

Orthopedic Surgery

JOSEPH S. BARR, M.D., John Ball and Buckminster Brown Clinical Professor of Orthopedic Surgery, and Head of the Department at the Massachusetts General Hospital.

WILLIAM T. GREEN, M.D., Clinical Professor of Orthopedic Surgery, and Head of the Department at The Children's Hospital.

OTTO E. AUFRANC, M.D., Assistant Clinical Professor of Orthopedic Surgery.

THORNTON BROWN, M.D., Assistant Clinical Professor of Orthopedic Surgery.

MEDICAL SCHOOL

JONATHAN COHEN, M.D., Assistant Clinical Professor of Orthopedic Surgery.

MELVIN J. GLIMCHER, M.D., Assistant Professor of Orthopedic Surgery at the Massachusetts General Hospital.

PAUL W. HUGENBERGER, M.D., Lecturer on Orthopedic Surgery.

HENRY H. BANKS, M.D., Clinical Associate in Orthopedic Surgery.

MEIER KARP, M.D., Clinical Associate in Orthopedic Surgery.

ARTHUR W. TROTT, M.D., Clinical Associate in Orthopedic Surgery.

THOMAS F. BRODERICK, JR., M.D., Instructor in Orthopedic Surgery.

THOMAS L. DE LORME, M.D., Instructor in Orthopedic Surgery.

WILLIAM A. ELLISTON, M.B., CH.B., Instructor in Orthopedic Surgery.

WILLIAM H. HARRIS, M.D., Instructor in Orthopedic Surgery.

WILLIAM N. JONES, M.D., Instructor in Orthopedic Surgery.

ROBERT J. JOPLIN, M.D., Instructor in Orthopedic Surgery.

WILLIAM L. KERMOND, M.B., B.S., Instructor in Orthopedic Surgery.

JOHN G. KUHN, M.D., Sc.D., Instructor in Orthopedic Surgery.

J. DRENNAN LOWELL, M.D., Instructor in Orthopedic Surgery.

WILLIAM R. MACAUSLAND, JR., M.D., Instructor in Orthopedic Surgery.

RICHARD A. MAYO, M.D., Instructor in Orthopedic Surgery.

PAUL L. NORTON, M.D., Instructor in Orthopedic Surgery.

EUGENE E. RECORD, M.D., Instructor in Orthopedic Surgery.

JOHN A. REIDY, M.D., Instructor in Orthopedic Surgery.

CARTER R. ROWE, M.D., Instructor in Orthopedic Surgery.

MORTEN SMITH-PETERSEN, M.D., Instructor in Orthopedic Surgery.

ROBERT ULIN, M.D., Instructor in Orthopedic Surgery.

FRANK D. BATES, M.D., Assistant in Orthopedic Surgery.

ROBERT B. BRENDZE, M.D., Assistant in Orthopedic Surgery.

GERALD S. BRICKMAN, M.D., Assistant in Orthopedic Surgery.

PAUL P. GRIFFIN, M.D., Assistant in Orthopedic Surgery.

HARVARD UNIVERSITY

PAUL I. O'BRIEN, M.D., Assistant in Orthopedic Surgery (from October 1, 1961).

MIHRAN O. TACHDJIAN, M.D., Assistant in Orthopedic Surgery.

JOHN H. BOWKER, M.D., Research Fellow in Orthopedic Surgery.

ULF A. FRIBERG, M.D., Research Fellow in Orthopedic Surgery.

RICHARD L. JACOBS, M.D., Research Fellow in Orthopedic Surgery.

ELTON P. KATZ, PH.D., Research Fellow in Orthopedic Surgery.

EDWIN J. MADDEN, M.D., Research Fellow in Orthopedic Surgery (appointment expires December 31, 1961).

DOROTHY F. TRAVIS, PH.D., Research Fellow in Orthopedic Surgery.

RICHARD G. EATON, M.D., Teaching Fellow in Orthopedic Surgery (from April 1, 1962).

JAMES H. ELDREDGE, M.D., Teaching Fellow in Orthopedic Surgery.

LAWRENCE M. LEONARD, M.D., Teaching Fellow in Orthopedic Surgery (from October 1, 1961).

JOHN B. MCGINTY, M.D., Teaching Fellow in Orthopedic Surgery (from October 1 through December 31, 1961).

MARVIN S. WEINFELD, M.D., Teaching Fellow in Orthopedic Surgery (from January 1 through March 31, 1962).

WILLIAM E. WILSON, M.D., C.M., Teaching Fellow in Orthopedic Surgery (appointment expired October 30, 1961).

JAMES P. ZETTAS, M.D., Teaching Fellow in Orthopedic Surgery (appointment expired October 30, 1961).

REQUIRED COURSE

ORTHOPEDIC SURGERY A. *Third Year*.—Instruction is given in orthopedic surgery by lectures at The Children's Hospital Medical Center and the Massachusetts General Hospital in the first half of the third year, and throughout the third year by clinical exercises at The Children's Hospital Medical Center, the Massachusetts General Hospital, the Peter Bent Brigham Hospital, and the Beth Israel Hospital.

THIRD YEAR

HOURS

Lectures. Drs. BARR, GREEN and Associates. C.H.M.C.

8

Clinical exercises. Drs. BARR, GREEN and Associates. M.G.H.,

MEDICAL SCHOOL

HOURS

C.H.M.C., P.B.B.H., and B.I.H. *In sections throughout the year.*

65

Thirty-five of these hours are clinical exercises in orthopedic surgery and surgery of trauma in adults which are correlated with clinical exercises in general surgery at the Massachusetts General Hospital, the Peter Bent Brigham Hospital and the Beth Israel Hospital during the surgery assignment to these hospitals. Forty-five hours are clinical exercises in general and pediatric orthopedic surgery at The Children's Hospital Medical Center.

FOURTH YEAR

Clinical exercises and assignments are provided in correlation with the prescribed general surgical course at the P.B.B.H.

FOURTH YEAR ELECTIVE COURSES

1. Clinical Course. Dr. BARR and Associates. M.G.H. Whole course, all day. Limited to two students each month.
2. Clinical Course. Dr. GREEN and Associates. C.H.M.C. Whole course, all day. Limited to two students each month.
3. Clinical Course. Drs. GREEN, BARR and Associates. C.H.M.C. and M.G.H. Whole course, all day. Limited to two students each month.

Otology and Laryngology

HAROLD F. SCHUKNECHT, M.D., A.M. (hon.), Walter Augustus Lecompte Professor of Otology, Professor of Laryngology, and Head of the Department.

JOHN R. RICHARDSON, M.D., Assistant Clinical Professor of Laryngology.

FRANCIS L. WEILLE, M.D., Assistant Clinical Professor of Otology.

GEORGE F. REED, M.D., Clinical Associate in Otolaryngology.

NELSON Y. KIANG, Ph.D., Research Associate in Otology.

ROBERT KIMURA, A.B., Research Associate in Otolaryngology (on leave October 1, 1961 through June 30, 1962).

WALTER A. ROSENBLITH, ING.RAD., Research Associate in Otolaryngology.

HARVARD UNIVERSITY

HUGO D. ANGELINI, M.D., Instructor in Otology.
WALTER J. E. CARROLL, M.D., Instructor in Laryngology.
JOSHUA C. DROOKER, M.D., Instructor in Laryngology.
CHARLES F. FERGUSON, M.D., Instructor in Otolaryngology.
CARLYLE G. FLAKE, M.D., Instructor in Laryngology.
EDGAR M. HOLMES, M.D., Instructor in Otology.
CHARLES KENT, M.D., Instructor in Laryngology.
ROBERT E. KLOTZ, M.D., Instructor in Otology.
DONALD K. LEWIS, M.D., Instructor in Otology and Laryngology.
WILLIAM W. MONTGOMERY, M.D., Instructor in Otology.
LOUIS E. GRIFFEY, M.D., Assistant in Otolaryngology.
ALFRED L. HURST, M.D., Assistant in Otolaryngology.
GEZA J. JAKO, M.D., Assistant in Otolaryngology.
ALBERT W. KOCH, Ed.D., Assistant in Otology.
JOSEPH LENTINE, M.D., Assistant in Laryngology.
ARAM ROOPENIAN, M.D., Assistant in Otology.
SIDNEY SHORE, M.D., Assistant in Otolaryngology.
GEORGE H. WILLIAMS, M.D., Assistant in Otolaryngology.
DAVID L. PIERCE, M.D., Teaching Fellow in Otolaryngology.

Affiliated:

JOHN S. IRWIN, M.D., Research Associate in Microcirculation,
M.I.T.

REQUIRED COURSE

OTOLOGY and LARYNGOLOGY A. *Third Year.*—Instruction is given by lectures at the Harvard Medical School and clinical instruction in the third year in sections, each student receiving instruction every morning for two weeks at the M.E.E.I.

THIRD YEAR	HOURS
Clinical exercises. Dr. SCHUKNECHT and Associates. M.E.E.I. <i>Ten or twelve exercises for each student.</i>	30
Lectures in Otology. Dr. SCHUKNECHT.	5
Lectures in Laryngology. Drs. RICHARDSON AND REED.	5

MEDICAL SCHOOL

FOURTH YEAR ELECTIVE COURSES

1. Clinical Otology. Dr. SCHUKNECHT and Associates. M.E.E.I. Half-course, mornings, offered throughout the year.
 2. Clinical Laryngology. Dr. SCHUKNECHT and Associates. M.E.E.I. Half-course, mornings, offered throughout the year.
- (These courses are limited to two students each month.)

Dental Medicine

The following course is offered to students in The Medical School:

VOLUNTARY COURSE

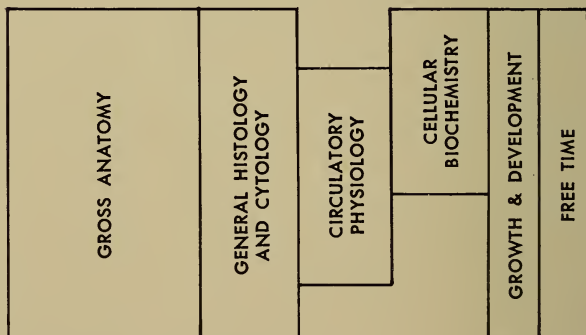
30. *Diagnosis of Oral Diseases*. Dr. WEISBERGER and Staff. *November and December*, Monday through Friday, 10 to 12 a.m. at the *Dental Clinic, M.G.H.* Open to *third* and *fourth* year students. Limited to three students.

**TABULAR VIEW
OF
SCHEDULES AND REGISTRATION**

SEPTEMBER 18, 1961 — JUNE 14, 1962

FIRST YEAR

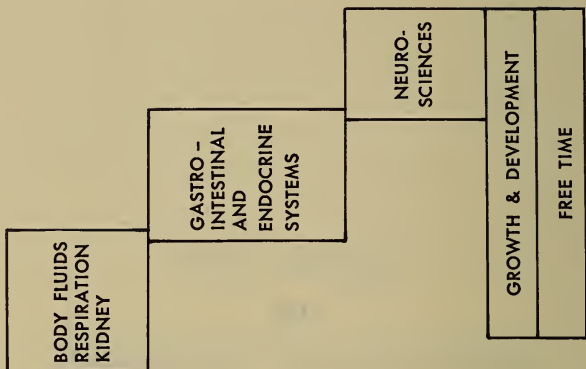
PRESENTATION OF PRINCIPLES



SEPTEMBER — JANUARY

FIRST SEMESTER

CORRELATIVE TEACHING



FEBRUARY — MAY

SECOND SEMESTER

FIGURE 1. The Arrangement of Course Material in the First Year.

In each semester, the sequential arrangement of the course material is presented. The area of each block in each semester diagram represents the relative amount of time allocated to each subject. Comparisons of time allocated to topics may be made only within each separate semester diagram, but not between diagrams.

SECOND YEAR

FIRST SEMESTER

SECOND SEMESTER

PRESENTATION OF PRINCIPLES

PATHOLOGY	
BACTERIOLOGY	
PHARMACOLOGY	
CHEMOTHERAPY	
GROWTH & DEVELOPMENT	
FREE TIME	

CORRELATIVE TEACHING

The various organ systems are treated in the order shown below. Also indicated are the chairmen of the inter-departmental teaching committees.

Hematopoietic system (68 hours)
 Dr. Jandl (Medicine)
 Gastrointestinal system (44 hours)
 Dr. Isselbacher (Medicine)
 Nervous system (70 hours)
 Dr. Richardson (Neurology)
 Respiratory system (37 hours)
 Dr. Cook (Pediatrics)
 Cardiovascular system (46 hours)
 Dr. Freiman (Pathology)
 Renal system (37 hours)
 Dr. Lubin (Pharmacology)
 Endocrine system (46 hours)
 Dr. Munson (Pharmacology)
 Case Taking (171 hours)
 Drs. Chapman (Medicine) and Frank (Surgery)

The following courses are also taught during the second semester.

Parasitology (44 hours)
 Dr. Neva (Tropical Public Health)
 Psychiatry (15 hours)
 Dr. Nemiah (Psychiatry)

CORRELATIVE TEACHING

FIGURE 2. The Arrangement of the Course Material in the Second Year.

The diagram is of the same nature as those of Figure 1. The correlative teaching consists of a large course on the mechanisms of disease (Pathologic Physiology), and of a course in the methods of history taking and physical diagnosis (Case-Taking).

MEDICAL SCHOOL

SEPTEMBER

JANUARY

JANUARY

MAY

THIRD YEAR

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8.30-9.30	Lecture <div> of Class: I. Med. Spec.* II. Medicine of Class: I. Surg. Spec.† II. Surgery of Class: A { Pediatrics Orthopaedic Surgery Obstetrics § B { Otolaryngology Ophthalmology </div>	Lecture <div> of Class: I. Med. Spec.* II. Medicine of Class: I. Surg. Spec.† II. Surgery of Class: A { Pediatrics Orthopaedic Surgery Obstetrics § B { Otolaryngology Ophthalmology </div>	Lecture <div> of Class: I. Med. Spec.* II. Medicine of Class: I. Surg. Spec.† II. Surgery of Class: A { Pediatrics Orthopaedic Surgery Obstetrics § B { Otolaryngology Ophthalmology </div>	Lecture <div> of Class: I. Med. Spec.* II. Medicine of Class: I. Surg. Spec.† II. Surgery of Class: A { Pediatrics Orthopaedic Surgery Obstetrics § B { Otolaryngology Ophthalmology </div>	Lecture <div> of Class: I. Med. Spec.* II. Medicine of Class: I. Surg. Spec.† II. Surgery of Class: A { Pediatrics Orthopaedic Surgery Obstetrics § B { Otolaryngology Ophthalmology </div>	Lecture <div> of Class: I. Med. Spec.* II. Medicine of Class: I. Surg. Spec.† II. Surgery of Class: A { Pediatrics Orthopaedic Surgery Obstetrics § B { Otolaryngology Ophthalmology </div>
10-1						
2-5	Lecture <div> of Class: Medicine of Class: Surgery of Class: { Pediatrics Orthopaedic Surgery </div>	FREE	<div> of Class: Medicine of Class: Surgery of Class: { Pediatrics Orthopaedic Surgery </div>	FREE	Lecture Preventive Medicine 2-5 (Oct. 23-Jan. 29) Legal Medicine 4.15-5.15	FREE

* Med. Spec. = Neurology, Psychiatry, Dermatology.
† Surg. Spec. = Genito-Urinary Surgery, Gynecology, Laryngology.
§ For this course the students are assigned to the B.L.I., B.C.H., or the P.L.I. and are on duty for a period of ten or eleven days.
The Class is divided into thirds and the Medical and Surgical thirds are made up of two groups:
Group I. — Having Medicine or Surgery on Mondays, Wednesdays and Fridays and the Medical or Surgical specialties on Tuesdays, Thursdays and Saturdays.
Group II. — Having Medicine or Surgery on Tuesdays, Thursdays and Saturdays and the Medical or Surgical specialties on Mondays, Wednesdays and Fridays.
The Third having Pediatrics, etc., is made up of Divisions A and B. These Divisions interchange every 32 days.
The Thirds interchange every 64 days.
Holidays: Oct. 12; Nov. 11; Nov. 23; Feb. 22; May 30.
Vacations: Dec. 21, 1961-Jan. 3, 1962; April 15-22, 1962.
Examination Period: June 4-9.

MEDICAL SCHOOL

FOURTH YEAR

(Each block represents one month. Order of subjects variable.)

	1	2	3	4
MORNING	Medicine C1, C2, C3, or C4	Medicine C1, C2, C3, or C4	Surgery C1, C2, C3, or C4*	Surgery C1, C2, C3, or C4*
AFTERNOON				
	5	6	7	8
MORNING	Obstetrics C1	Pediatrics C1 or C2	Psychiatry C1, C2, or C3	Elective
AFTERNOON				

In addition to the eight months' required work, each student may elect courses for three additional months by anticipating work during the summer months.

* October to May.

ON JUNE 15, 1961, ONE HUNDRED AND THIRTY-ONE DEGREES WERE
CONFERRED AS FOLLOWS:

M.D.

- THOMAS MARSHALL AABERG, A.B. (*Dartmouth Coll.*) 1958.
TENLEY EMMA ALBRIGHT.
DOUGLAS VINCENT ALMOND, A.B. (*Yale Univ.*) 1957.
MORTON ARNOLD ALTERMAN, A.B. (*Johns Hopkins Univ.*) 1957.
RUBEN ALTMAN, A.A. (*George Washington Univ.*) 1955, S.B. (*ibid.*)
1955.
WALTER RUDDY ANYAN, JR., A.B. (*Dartmouth Coll.*) 1958.
WILLIAM GEORGE APPLETON, JR., A.B. 1954.
FRANK OLIVER AVANTAGGIO, JR., A.B. (*Wesleyan Univ.*) 1956.
JOHN HERBERT BACKMAN, S.B. (*Franklin and Marshall Coll.*) 1957.
HERBERT BENSON, A.B. (*Wesleyan Univ.*) 1957.
DARREL DWIGHT BIBLER, JR., S.B. (*Denison Univ.*) 1957.
LLEWELLYN BARRY BIGELOW, A.B. 1957.
HOWARD FRANCIS CARPENTER, JR., A.B. (*Coll. of the Holy Cross*) 1957.
DAVID MARTIN CARTER, A.B. (*Dartmouth Coll.*) 1958.
ALLEN LEE CLINE, S.B. (*Baldwin-Wallace Coll.*) 1957.
MICHAEL LEE CONNELL, A.B. (*Stanford Univ.*) 1957.
THOMAS HARVEY COVEY, JR., A.B. (*West Virginia Univ.*) 1957.
MAYER BENSON DAVIDSON, A.B. (*Swarthmore Coll.*) 1957.
FRANCIS CURTIS DOHAN, JR., A.B. (*Princeton Univ.*) 1957.
JOHN PATTERSON DOW, A.B. (*Bowdoin Coll.*) 1957.
STEPHEN GEORGE EDELSTEIN, A.B. (*New York Univ.*) 1957.
JACK THOMAS ELLIS, A.B. 1952.
WILLIAM WALLACE ELLIS, A.B. (*Yale Univ.*) 1957.
RICHARD EUBANKS FEARON, A.B. (*Williams Coll.*) 1957.
ALBERT ROLAND FREDERICK, JR., S.B. (*Univ. of Florida*) 1957.
JULES ROALD FUGLESTAD, A.B. (*Concordia Coll.*) 1957, S.B. IN MED.
(*Univ. of North Dakota*) 1959.
PIERCE GARDNER, A.B. (*Amherst Coll.*) 1957.
ALAN BLAKE GAZZANIGA, A.B. (*Dartmouth Coll.*) 1958.
HAROLD JAY GINSBURG, A.B. 1957.
ARTHUR RONALD GRIMM, A.B. 1957.
RUTH FRANCES JACOBSON GROMMERS, A.B. (*Radcliffe Coll.*) 1952.

MEDICAL SCHOOL

- RANDOLPH HOBSON GUTHRIE, JR., A.B. (*Princeton Univ.*) 1957.
 THOMAS RICHARD HAKALA, A.B. (*Stanford Univ.*) 1958.
 CHARLES GORDON HALGRIMSON, A.B. (*Concordia Coll.*) 1956, S.B. IN
 MED. (*Univ. of North Dakota*) 1959.
 MARK RICHARD HANSCHKA, A.B. (*Amherst Coll.*) 1955.
 PETER CAHNERS HARPEL, A.B. 1957.
 FRANK BEECKMAN HOEFLE, A.B. (*Dartmouth Coll.*) 1957.
 JAMES THOBURN HOLMES, JR.
 JAMES RONALD HURD, A.B. (*Princeton Univ.*) 1957.
 JAMES RICHARD KEANE, S.B. (*Univ. of Utah*) 1958.
 JEFFREY KRAMER, A.B. 1957.
 FREDRICK CHARLES KRISS, A.B. (*Ohio State Univ.*) 1957.
 RICHARD NORTON LAMB, B.E. (*Yale Univ.*) 1957.
 JOHN MICHAEL LANE, A.B. (*Yale Univ.*) 1957.
 ELIZABETH ANN MIRABILE LEES, A.B. (*Wellesley Coll.*) 1957.
 ALAN IRA LEVENSON, A.B. 1957.
 DAVID CARLETON LEWIS, A.B. (*Brown Univ.*) 1957.
 PETER SELIG LIEBERT, A.B. (*Princeton Univ.*) 1957.
 DAVID ALLAN LUND, A.B. (*St. Olaf Coll.*) 1956.
 JOHN DICKINSON MCGAVIC, A.B. (*Amherst Coll.*) 1957.
 LEE BRAND MACHT, A.B. (*Princeton Univ.*) 1957.
 MICHAEL JOHN MCKEOWN, A.B. (*Dartmouth Coll.*) 1958.
 JOHN ALAN MAXWELL, A.B. 1955.
 RALPH ENGLISH MILLER, JR., A.B. (*Dartmouth Coll.*) 1958.
 MURIEL ELEANOR MOLDAWER, S.B. (*Pennsylvania State Univ.*) 1957.
 ROYCE MOSER, JR., A.B. 1957.
 LOREN RICHARD MOSHER, A.B. (*Stanford Univ.*) 1956.
 FRANKLIN STIRLING NELSON, A.B. 1955.
 JOHN RICHARD NICEFORO, S.B. (*Tufts Univ.*) 1957.
 LLOYD CLARENCE OLSON, A.B. (*Reed Coll.*) 1957.
 WILLIAM JOHN OTTO, JR., A.B. 1957.
 NILO JOHN PAREJA, S.B. (*Tulane Univ.*) 1957.
 JAN POLISSAR, S.B. (*Univ. of California*) 1956.
 PETER BULKLEY FITZ RANDOLPH, A.B. (*Yale Univ.*) 1956.
 STEPHEN PAUL REIBEL, A.B. 1957.
 MARK WOODFORDE RHINE, A.B. 1957.
 DONALD LEE RIFE, A.B. (*Yale Univ.*) 1957.
 FENWICK CHARLES RILEY, JR., A.B. (*Dartmouth Coll.*) 1956.
 GEORGE LORIMER ROBB, A.B. 1957.

HARVARD UNIVERSITY

- GARY LEE ROBERTSON, A.B. 1957.
 ELBERT FLOYD ROBINSON, A.B. (*Dartmouth Coll.*) 1958.
 EDWARD JACKSON ROLDE, A.B. 1957.
 ROBERT MARC ROSE, A.B. (*Bard Coll.*) 1957.
 HOWARD EZRA ROTNER, A.B. (*Amherst Coll.*) 1957.
 MARTIN LEWIS RUBIN, A.B. (*Princeton Univ.*) 1957.
 RICHARD WALLACE SAGEBIEL, A.B. (*Yale Univ.*) 1956.
 MARK LEE SAGINOR, A.B. (*Dartmouth Coll.*) 1958.
 DONALD JACOB SCHERL, A.B. (*Yale Univ.*) 1957.
 ARTHUR HAROLD SCHWARTZ, A.B. (*Columbia Univ.*) 1957.
 DOUGLAS JOEL SHEFT, A.B. (*Cornell Univ.*) 1957.
 HARVEY MARSDEN SHEIN, A.B. (*Cornell Univ.*) 1954.
 PETER KRAMER SPIEGEL, A.B. (*Dartmouth Coll.*) 1958.
 WILBUR JOHNSON SPRINGER, JR., A.B. (*Dartmouth Coll.*) 1957.
 JAMES HARRY STEPHANS, A.B. (*Carleton Coll.*) 1957.
 LARRY HOLLINGSWORTH STRASBURGER, A.B. (*Yale Univ.*) 1957.
 JOHN PERLEY STRATTON, A.B. (*Earlham Coll.*) 1957.
 WAYNE MORRIS SWENSON, S.B. (*North Dakota Agricultural Coll.*)
 1956, S.M. (*ibid.*) 1957, S.B. IN MED. (*Univ. of North Dakota*)
 1959.
 WILLIAM HENRY THOMAS, A.B. (*Dartmouth Coll.*) 1957.
 ROBERT PHILLIPS TIMOTHY, A.B. (*Dartmouth Coll.*) 1958.
 JAMES KENNETH VERNON, A.B. (*Amherst Coll.*) 1957.
 JAMES HEBER WARRAM, JR., S.B. (*Univ. of Oklahoma*) 1957.
 DOUGLAS FELBER WELPTON, A.B. (*Stanford Univ.*) 1957.
 ROBERT SUMNER WEST, A.B. (*Univ. of North Dakota*) 1957, S.B. IN
 MED. (*ibid.*) 1959.
 PAUL SAUREL WHEELER, A.B. 1957.
 ROBERT CLEWS WHEELER, 2D, A.B. (*Johns Hopkins Univ.*) 1957.
 IVAN DODD WILSON, A.B. (*Dartmouth Coll.*) 1958.
 WILLIAM ZACHARY YAHR, A.B. (*Dartmouth Coll.*) 1958.
 RAYMOND CHARLES YERKES, A.B. (*State Univ. of Iowa*) 1958.
 CLARENCE EDGAR ZIMMERMAN, 2D, A.B. (*Yale Univ.*) 1957.

M.D. cum laude for Thesis in a Special Field

- JAMES JOSEPH FISCHER, S.B. (*Yale Univ.*) 1957.
 SAMUEL RALPH HIMMELHOCH, A.B. 1957.
 JOHN MICHAEL STEIN, A.B. 1957.
 ROBERT RICE YOUNG, S.B. (*Yale Univ.*) 1956.

MEDICAL SCHOOL

M.D. cum laude

- DAVID REYNOLDS CHALLONER, S.B. (*Lawrence Coll.*) 1956.
GEORGE ROBERT DELONG, A.B. (*DePauw Univ.*) 1957.
ROBERT FLESCHER, A.B. (*Columbia Univ.*) 1957.
ELWIN EUGENE FRALEY, A.B. (*Princeton Univ.*) 1957.
STEPHEN POSS GRAYER, A.B. (*Amherst Coll.*) 1957.
AXEL HOFFER, A.B. 1957.
NEWTON EVERETT HYSLOP, JR., A.B. 1957.
KENT HARRY JOHNSTON, S.B. (*Ohio State Univ.*) 1957.
ALAN SEAVER KEITT, A.B. 1957.
GLENN YUE-HUNG LEE, A.B. 1957.
ROBERT CHARLES LEINBACH, A.B. (*Williams Coll.*) 1957.
JAMES JOSEPH MERTZ, A.B. (*Rutgers Univ.*) 1957.
YEU-TSU NEE, A.B. (*Univ. of South Dakota*) 1957.
ROBERT KEITH OCKNER, A.B. (*Pomona Coll.*) 1957.
JAMES CREIGHTON PARKES, 2D, A.B. (*Dartmouth Coll.*) 1957.
RICHARD ORLA POE, S.B. (*Iowa State Coll.*) 1958.
LARRY GILBERT SEIDL, JR., A.B. (*Western Reserve Univ.*) 1957.
KENNETH IRWIN SHINE, A.B. 1957.
RICHARD JAY STECKEL, A.B. 1957.
ROBERT WILLIAM TEN BENSEL, A.B. (*Dartmouth Coll.*) 1958.
RONALD MARTIN WEINTRAUB, A.B. 1957.
DALE EINAR WENLUND, A.B. (*Univ. of Minnesota*) 1958, S.B. (*ibid.*) 1959.
JOHN FRANKLIN WILBER, A.B. (*Amherst Coll.*) 1957.

M.D. magna cum laude for Thesis in a Special Field

- LUBERT STRYER, S.B. (*Univ. of Chicago*) 1957.

M.D. magna cum laude

- NORMAN ROBERT COHEN, A.B. (*Cornell Univ.*) 1957.
JOSEF E FISCHER, A.B. (*Yeshiva Univ.*) 1957.
BRUCE EDWIN ZAWACKI, S.B. (*Coll. of the Holy Cross*) 1957.

M.D. summa cum laude

- JOHN NICHOLS LOEB, A.B. 1957.

CLASS OF JUNE 1961

INTERNSHIPS

Unless otherwise noted all internships start July 1, 1961,
for one year.

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Aaberg, Thomas M.	Minneapolis General, Minneapolis, Minn.	Rotating
Albright, Tenley E.	Beverly Hospital, Beverly, Mass.	Surgery
Almond, Douglas V.	Univ. of Pennsylvania, Philadel- phia, Pa.	Rotating
Alterman, Morton A.	Beth Israel, Boston	Medicine
Altman, Ruben	George Washington Univ., Wash- ington, D.C.	Mixed
Anyan, Walter R., Jr.	Strong Memorial, Rochester, N.Y.	Pathology
Appleton, William G.	Boston City (Tufts Service), Bos- ton	Medicine
Avantaggio, Frank O.	Maine Medical Center, Portland, Maine	Rotating
Backman, John H.	Bellevue (3rd Div. — NYU), New York, N.Y.	Medicine
Benson, Herbert	King County, Seattle, Wash.	Medicine
Bibler, Darrel D., Jr.	King County, Seattle, Wash.	Surgery
Bigelow, Llewellyn B.	Univ. of Illinois Research & Edu- cational, Chicago, Ill.	Rotating
Carpenter, Howard F.	Boston City (Harvard Service), Boston	Surgery
Carter, David M.	Strong Memorial, Rochester, N.Y.	Mixed
Challoner, David R.	Presbyterian, New York, N.Y.	Medicine
Cline, Allen L.	Buffalo General, Buffalo, N.Y.	Medicine
Cohen, Norman R.	Massachusetts General, Boston	Medicine
Connell, Michael L.	North Carolina Memorial, Chapel Hill, N.C.	Mixed

MEDICAL SCHOOL

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Covey, Thomas H., Jr.	University Hospital, Ann Arbor, Mich.	Surgery
Davidson, Mayer B.	Bellevue (2d Div. — Cornell), New York, N.Y.	Medicine
De Long, George R.	Boston City (Harvard Service), Boston	Medicine
Dohan, F. Curtis, Jr.	Bellevue (2d Div. — Cornell), New York, N.Y.	Medicine
Dow, John P.	Hartford Hospital, Hartford, Conn.	Rotating
Edelstein, Stephen G.	Cincinnati General, Cincinnati, Ohio	Rotating
Ellis, Jack T.	San Francisco Hosp., San Francisco, Calif.	Rotating
Ellis, William W.	Univ. of Virginia, Charlottesville, Va.	Medicine
Fearon, Richard E.	University Hospitals, Cleveland, Ohio	Medicine
Fischer, James J.	Division of Medical Sciences, Harvard Univ.	Pharmacology
Fischer, Josef E.	Massachusetts General, Boston	Surgery
Flescher, Robert	Boston City (Harvard Service), Boston	Medicine
Farley, Elwin E.	Massachusetts General, Boston	Surgery
Frederick, Albert R.	Boston City (Harvard Service), Boston	Medicine
Fuglestad, Jules A.	Minneapolis General, Minneapolis, Minn.	Rotating
Gardner, Pierce	King County, Seattle, Wash.	Rotating
Gazzaniga, Alan B.	Peter Bent Brigham, Boston	Surgery
Ginsburg, Harold J.	Boston City (Tufts Service), Boston	Surgery
Grayer, Stephen P.	Peter Bent Brigham, Boston	Surgery
Grimm, Arthur R.	Roosevelt Hospital, New York, N.Y.	Mixed
Grommers, Frances J.	Internship postponed	

HARVARD UNIVERSITY

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Guthrie, Randolph H.	New York Hospital, New York, N.Y.	Surgery
Hakala, Thomas R.	Massachusetts General, Boston	Surgery
Halgrimson, Charles G.	Colorado General, Denver, Colo.	Surgery
Hanschka, Mark R.	Univ. of Oregon Med. Sch., Portland, Oregon	Rotating
Harpel, Peter C.	Bellevue (2d Div. — Cornell), New York, N.Y.	Medicine
Himmelhoch, S. Ralph	Peter Bent Brigham, Boston	Medicine
Hoefle, Frank B.	Lenox Hill Hosp., New York, N.Y.	Rotating
Hoffer, Axel	Massachusetts General, Boston	Medicine
Holmes, James T.	Univ. of Washington, Seattle, Wash.	Surgery
Hurd, James R.	St. Louis City Hosp., St. Louis, Mo.	Surgery
Hyslop, Newton E., Jr.	Massachusetts General, Boston	Medicine
Johnston, Kent H.	University Hospitals, Cleveland, Ohio	Surgery
Keane, James R.	Bellevue (2d Div. — Cornell), New York, N.Y.	Medicine
Keitt, Alan S.	Massachusetts General, Boston	Medicine
Kramer, Jeffrey	Bellevue (3rd Div. — NYU), New York, N.Y.	Medicine
Kriss, Fred C.	University Hospital, Ann Arbor, Mich.	Surgery
Lamb, Richard N.	University Hospital and Hillman Clinic, Birmingham, Ala.	Medicine
Lane, J. Michael	Internship postponed	
Lee, Glenn Y.	Boston City (Harvard Service), Boston	Medicine
Lees, E. Ann Mirabile	Mount Auburn Hospital, Cambridge, Mass.	Mixed
Leinbach, Robert C.	Boston City (Harvard Service), Boston	Medicine

MEDICAL SCHOOL

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Levenson, Alan I.	University Hospital, Ann Arbor, Mich.	Rotating
Lewis, David C.	Beth Israel, Boston	Medicine
Liebert, Peter S.	Peter Bent Brigham, Boston	Surgery
Loeb, John N.	Massachusetts General, Boston	Medicine
Lund, David A.	Univ. of Minnesota, Minneapolis, Minn.	Medicine
Macht, Lee B.	Beth Israel, Boston	Medicine
Maxwell, John A.	Roosevelt Hosp., New York, N.Y.	Mixed
McGavic, John D.	Univ. of Washington, Seattle, Wash.	Surgery
McKeown, Michael J.	Univ. of Chicago Clinics, Chicago, Ill.	Rotating
Mertz, James J.	Peter Bent Brigham, Boston	Medicine
Miller, Ralph E., Jr.	Mary Hitchcock Memorial, Hanover, N.H.	Rotating
Moldawer, Muriel E.	Bronx Municipal Hosp. Center, New York, N.Y.	Pediatrics
Moser, Royce, Jr.	New England Center, Boston	Medicine
Mosher, Loren R.	Univ. of California, San Francisco, Calif.	Medicine
Nee, Yeu-Tsu	University Hospital, Ann Arbor, Mich.	Surgery
Nelson, Franklin S.	Boston City (Harvard Service), Boston	Surgery
Niceforo, John R.	Beth Israel, Boston	Medicine
Ockner, Robert K.	Boston City (Harvard Service), Boston	Medicine
Olson, Lloyd C.	Strong Memorial, Rochester, N.Y.	Pediatrics
Otto, William J., Jr.	North Carolina Memorial, Chapel Hill, N.C.	Medicine
Pareja, Nilo J.	North Carolina Memorial, Chapel Hill, N.C.	Medicine
Parkes, James C., 2d	Roosevelt Hospital, New York, N.Y.	Mixed
Poe, Richard O.	Univ. of Washington, Seattle, Wash.	Medicine

HARVARD UNIVERSITY

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Polissar, Jan	Newton-Wellesley Hospital, New- ton, Mass.	Rotating
Randolph, Peter B. F.	University Hospitals, Cleveland, Ohio	Medicine
Reibel, Stephen P.	North Carolina Memorial, Chapel Hill, N.C.	Medicine
Rhine, Mark W.	King County, Seattle, Wash.	Rotating
Rife, Donald L.	Grace-New Haven Community, New Haven, Conn.	Pediatrics
Riley, Fenwick C., Jr.	Univ. of Oregon Med. Sch., Port- land, Oregon	Rotating
Robb, George L.	Children's Hosp. Med. Center, Boston	Pediatrics
Robertson, Gary L.	Louisville General, Louisville, Ky.	Medicine
Robinson, E. Floyd	Jefferson Davis, Houston, Texas	Surgery
Rolde, Edward J.	Beth Israel, Boston	Medicine
Rose, Robert M.	Boston City (Tufts Service), Bos- ton	Medicine
Rotner, Howard E.	North Carolina Memorial, Chapel Hill, N.C.	Medicine
Rubin, Martin L.	Rochester General, Rochester, N.Y.	Medicine
Sagebiel, Richard W.	King County, Seattle, Wash.	Medicine
Saginer, Mark L.	Univ. of California, Los Angeles, Calif.	Medicine
Scherl, Donald J.	Univ. of California, San Francisco, Calif.	Medicine
Schwartz, Arthur H.	Univ. of Illinois Research & Edu- cational, Chicago, Ill.	Rotating
Seidl, Larry G.	Boston City (Harvard Service), Boston	Medicine
Sheft, Douglas J.	Boston City (Harvard Service), Boston	Medicine
Shein, Harvey M.	Children's Hospital Medical Cen- ter, Boston	Research
Shine, Kenneth I.	Massachusetts General, Boston	Medicine

MEDICAL SCHOOL

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Spiegel, Peter K.	Boston City (Harvard Service), Boston	Medicine
Springer, Wilbur J.	Mary Hitchcock Memorial, Han- over, N.H.	Rotating
Steckel, Richard J.	Univ. of California, Los Angeles, Calif.	Medicine
Stein, John M.	New York Hospital, New York, N.Y.	Surgery
Stephans, James H.	King County, Seattle, Wash.	Medicine
Strasburger, Larry H.	San Francisco Hosp., San Fran- cisco, Calif.	Rotating
Stratton, John P.	Cincinnati General, Cincinnati, Ohio	Rotating
Stryer, Lubert	Harvard University	Physics
Swenson, Wayne M.	Presbyterian-St. Luke's, Chicago, Ill.	Rotating
tenBensel, Robert W.	Univ. of Minnesota, Minneapolis, Minn.	Pediatrics
Thomas, William H.	Strong Memorial, Rochester, N.Y.	Surgery
Timothy, Robert P.	Strong Memorial, Rochester, N.Y.	Surgery
Vernon, James K.	University of Utah, Salt Lake City, Utah	Rotating
Warram, James H., Jr.	Strong Memorial, Rochester, N.Y.	Pathology
Weintraub, Ronald M.	Barnes, St. Louis, Mo.	Surgery
Welpton, Douglas F.	North Carolina Memorial, Chapel Hill, N.C.	Medicine
Wenlund, Dale E.	Massachusetts General, Boston	Surgery
West, Robert S.	U.S. Naval Hospital, Chelsea, Mass.	Rotating
Wheeler, Paul S.	Cleveland Metropolitan, Cleveland, Ohio	Surgery
Wheeler, Robert C., Jr.	Univ. of Virginia, Charlottesville, Va.	Medicine
Wilber, John F.	Peter Bent Brigham, Boston	Medicine

HARVARD UNIVERSITY

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Wilson, Ivan D.	Univ. of Minnesota, Minneapolis, Minn.	Medicine
Yahr, William Z.	Presbyterian, New York, N.Y.	Surgery
Yerkes, Raymond C.	Beth Israel, Boston	Medicine
Young, Robert R.	Peter Bent Brigham, Boston	Medicine
Zawacki, Bruce E.	Massachusetts General, Boston	Surgery
Zimmerman, Clar- ence E.	Peter Bent Brigham, Boston	Surgery

FOURTH CLASS (1962)

- Abel, Howard Richard, A.B. (*Cornell Univ.*) 1958. *New York, N. Y.*
 August, Charles Saul, A.B. 1958. *Northampton*
 Baddock, Sheldon Stuart, A.B. (*Amherst Coll.*) 1958. *Baltimore, Md.*
 Barrett, Cynthia Townsend, A.B. (*Vassar Coll.*) 1958. *Santa Barbara, Cal.*
 Beasley, Robert Palmer, A.B. (*Dartmouth Coll.*) 1958. *Los Angeles, Cal.*
 Bennett, Michael Jay, A.B. (*Princeton Univ.*) 1958. *Lynbrook, N. Y.*
 Berlin, Cheston Milton, Jr., A.B. (*Haverford Coll.*) 1958. *Pittsburgh, Pa.*
 Bernhard, Elizabeth, S.B. (*Tufts Univ.*) 1958. *Shrub Oak, N. Y.*
 Berson, Eliot Lawrence, S.B. (*Yale Univ.*) 1958. *Chelsea*
 Bishop, John Michael, A.B. (*Gettysburg Coll.*) 1957. *Gettysburg, Pa.*
 Bridge, Martha Sylvia, A.B. (*Bryn Mawr Coll.*) 1958. *New York, N. Y.*
 Bulova, Stephen Ian, A.B. (*Yale Univ.*) 1958. *Riverdale, N. Y.*
 Burton, Richard Irving, A.B. (*Amherst Coll.*) 1958. *Providence, R. I.*
 Caviness, Verne Strudwick, A.B. (*Duke Univ.*) 1956, DR. PHIL. (*Univ. of Oxford*) 1960. *Raleigh, N. C.*
 *Colaiaice, William Michael, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. *Rochester, N. Y.*
 Colman, Arthur David, A.B. 1958. *Neponsit, N. Y.*
 Conn, Richard Lee, A.B. (*Thiel Coll.*) 1958. *Akron, Ohio*
 Cooksey, Jack Calvin, A.B. 1958. *Denver, Colo.*
 Cserr, Robert, A.B. 1958. *Fords, N. J.*
 Dain, David Wilson, A.B. (*Hiram Coll.*) 1958. *Warren, Ohio*
 *Danielson, Robert Almy, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. *Pearl River, N. Y.*
 Deane, Frederick Robinson McReynolds, A.B. (*Amherst Coll.*) 1958. *East Grand Rapids, Mich.*
 de Lemos, Robert Adolph, A.B. (*Amherst Coll.*) 1958. *Mount Vernon, N. Y.*
 Dewees, Guy Bryan, 3d, A.B. (*Univ. of Mississippi*) 1958. *Pocahontas, Miss.*

‡ Admitted on basis of three years' college work.

* Transferred to the third year class.

HARVARD UNIVERSITY

- *DiMauro, Robert Michael, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. Paterson, N. J.
- Dixon, John Paul, A.B. (*Yale Univ.*) 1952. Maplewood, N. J.
- Dluhy, Robert George, A.B. (*Princeton Univ.*) 1958. Clifton, N. J.
- Dobrow, Richard Bein, A.B. 1958. Akron, Ohio
- *Dobrowolski, Peter Edmund, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. Passaic, N. J.
- Donahue, William Cannon, S.B. (*Coll. of the Holy Cross*) 1958. Belmont
- Drummond, Charles Stitt, Jr., S.B. (*Davidson Coll.*) 1958. Winston-Salem, N. C.
- Eggleston, Robert Bolling, A.B. (*Univ. of Virginia*) 1957. Danville, Va.
- Evans, Peter Alan, A.B. 1958. Cresson, Pa.
- Feldman, Arnold, A.B. (*Columbia Univ.*) 1958. Mt. Vernon, N. Y.
- Finkel, Richard Mezer, A.B. 1958. Chelsea
- Franklin, Ernest Washington, 3d, A.B. (*Princeton Univ.*) 1958. Charlotte, N. C.
- *Freier, Duane Theodore, A.B. (*Yankton Coll.*) 1958. [State Univ. of South Dakota School of Medicine]. Delmont, S. Dak.
- Friedberg, David Zachary, A.B. (*Williams Coll.*) 1958. Brooklyn, N. Y.
- Gill, Donald Joseph, S.B. (*Boston Coll.*) 1958. Everett
- *Gilliatt, Cecil Lee, Jr., A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. Shelby, N. C.
- Gold, Ronald, A.B. 1957. Chester, Pa.
- Goldberg, Morton Falk, A.B. 1958. Amesbury
- Goodsitt, Arnold Martin, A.B. (*Yale Univ.*) 1958. Shaker Heights, Ohio
- Green, Winslow Warren Chilton, A.B. 1958. Brookline
- Greenwell, Jack Brysson, Jr., A.B. (*Yale Univ.*) 1958. Kealakekua, Hawaii
- Gundersen, Peter Mason, A.B. 1955. Brookline
- Hanson, Graeme, A.B. (*Yale Univ.*) 1958. Bath, Maine
- *Harris, Edward Day, Jr., A.B. (*Dartmouth Coll.*) 1958. [Dartmouth Medical School]. Camp Hill, Pa.
- Hartsuck, James Malcolm, S.B. (*Univ. of Oklahoma*) 1958. Drumright, Okla.
- Hartz, John William, A.B. (*Albion Coll.*) 1958. Detroit, Mich.
- Henneke, Hope, A.B. (*Vassar Coll.*) 1957. Babylon, N. Y.
- †Herb, Robert William, A.B. 1959. Mt. Carmel, Pa.

MEDICAL SCHOOL

- Howe, Robert Bruce, s.B. (*Union Coll.*) 1958. *Little Falls, N. Y.*
- Hussey, Robert William, s.B. (*Albright Coll.*) 1958. *West Reading, Pa.*
- Inselburg, Joseph Willard, s.B. (*Univ. of Miami*) 1958. *Miami, Fla.*
- Jonas, Steven, A.B. (*Columbia Univ.*) 1958. *New York, N. Y.*
- Jorgensen, Charles Richard, s.B. (*Iowa State Coll.*) 1958. *Elkhorn, Neb.*
- Kang, Andrew Ho, s.B. (*Wofford Coll.*) 1957. *Seoul, Korea*
- Kim, Samuel Homer, A.B. 1958. *Watertown*
- Konigsberg, Stephen Feuer, A.B. (*Columbia Univ.*) 1958. *New York, N. Y.*
- Kosowsky, Bernard David, A.B. (*Columbia Univ.*) 1958. *Bronx, N. Y.*
- Lawrence, Thomas George, Jr., s.B. (*Union Coll.*) 1958. *W. Hartford, Conn.*
- *Lawson, Dexter Wayne, A.B. 1958. [Johns Hopkins University School of Medicine]. *Swampscott*
- Lees, Charles William, A.B. (*Amherst Coll.*) 1958. *Chatham*
- Lehman, Ralph Arnold Walter, A.B. 1958. *New York, N. Y.*
- Lehrich, James Richard, A.B. 1958. *Brooklyn, N. Y.*
- McIntosh, Kenneth, A.B. 1958. *New York, N. Y.*
- McPhedran, Peter, A.B. 1958. *Philadelphia, Pa.*
- Mack, Joel Donald, A.B. 1958. *Brighton*
- *Magill, Thomas George, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. *Wilbraham*
- Mansfield, Peter Bicknell, A.B. (*Stanford Univ.*) 1958. *Seattle, Wash.*
- May, George Arthur, Jr., A.B. (*Yale Univ.*) 1958. *Madison, Ind.*
- Menken, Matthew, A.B. (*Univ. of Pennsylvania*) 1958. *Philadelphia, Pa.*
- Meyer, Roger Emil, A.B. (*Hobart Coll.*) 1958. *West Nyack, N. Y.*
- Mezey, Esteban, A.B. (*Yale Univ.*) 1958. *Bogota, Col.*
- Mickel, Hubert Sheldon, s.B. (*Eastern Nazarene Coll.*) 1958. *Alum Bank, Pa.*
- *Miller, Donald Stuart, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. *Philadelphia, Pa.*
- *Miller, Douglas Allen, A.B. (*Univ. of North Dakota*) 1958, s.M. (*ibid.*) 1959, s.B. IN MED. (*ibid.*) 1960. [Univ. of North Dakota School of Medicine]. *Cando, N. Dak.*
- Miller, George, A.B. 1958. *Chicago, Ill.*
- Minock, Catherine Monnier, A.B. (*Stanford Univ.*) 1958. *Tarzana, Cal.*

HARVARD UNIVERSITY

- Moellering, Robert Charles, Jr., A.B. (*Valparaiso Univ.*) 1958. *Ft. Wayne, Ind.*
- Moore, William Roland, S.B. (*Univ. of Cal. at Los Angeles*) 1958. *Denver, Colo.*
- *Munro, Howard George, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. *Freeport, N. Y.*
- Neelon, Francis Albert, S.B. (*Boston Coll.*) 1958. *Melrose*
- *Noble, Gary Rollin, A.B. (*Albion Coll.*) 1957. [Univ. of Michigan Medical School]. *Grand Ledge, Mich.*
- Ouellette, Eileen Marie, A.B. (*Smith Coll.*) 1958. *Holyoke*
- Paine, Anita, A.B. (*Smith Coll.*) 1958. *Litchfield, Conn.*
- Parker, Richard Malcolm, A.B. (*Cornell Univ.*) 1958. *New York, N. Y.*
- Podos, Steven Maurice, A.B. (*Princeton Univ.*) 1958. *Brooklyn, N. Y.*
- Pollatsek, Michael Eliot, A.B. 1958. *New York, N. Y.*
- Pruett, Kenneth Albert, A.B. 1958. *Charlotte, N. C.*
- Pyles, Robert Lindsay, A.B. (*Univ. of Virginia*) 1958. *Shadwell, Va.*
- Ravella, David Lawrence, Jr., S.B. (*Univ. of Pittsburgh*) 1958. *Pittsburgh, Pa.*
- Reiss, David, A.B. 1958. *New York, N. Y.*
- Reiss, James Henry, A.B. 1958. *New York, N. Y.*
- Rosenthal, Saul Haskell, A.B. 1958. *Brooklyn, N. Y.*
- Silberstein, Edward Bernard, S.B. (*Yale Univ.*) 1958. *Cincinnati, Ohio*
- Silbert, David Frederick, A.B. 1958. *Chestnut Hill*
- Sillman, Frederick Holden, A.B. (*Princeton Univ.*) 1958. *Bayville, N. Y.*
- Smith, Charles Bryan, A.B. (*Amherst Coll.*) 1958. *Weston*
- Sobel, Burton Elias, A.B. (*Cornell Univ.*) 1958. *Larchmont, N. Y.*
- Sorrentino, Eleanor Ann Attianese, A.B. (*Bryn Mawr Coll.*) 1958. *Brooklyn, N. Y.*
- Sparling, Philip Frederick, A.B. (*Princeton Univ.*) 1958. *Barrington, Ill.*
- Strobel, George Elwood, Jr., A.B. 1958. *Wheeling, West Va.*
- Swift, David Bearce, S.B. (*Norwich Univ.*) 1958. *Lincoln*
- Thoft, Richard Allan Porter, S.B. (*Massachusetts Inst. of Technology*) 1958. *Stevensville, Mont.*
- †Tomlinson, Jerry Allan (*Harvard Coll.*) *Marion, Ind.*
- Vaillant, Henry Winchester, A.B. 1958. *Bloomfield Hills, Mich.*
- Waldron, Robert Leroy, 2d, A.B. (*Princeton Univ.*) 1958. *Rockford, Ill.*

MEDICAL SCHOOL

- Walker, Michael Johnson, S.B. IN B.A. (*Boston Univ.*) 1952, A.B. (*New York Univ.*) 1958. Jackson Heights, N. Y.
- Waxman, Herbert Sumner, S.B. (*Massachusetts Inst. of Technology*) 1958. Mattapan
- *Wirthlin, LeRoy Samuel, S.B. (*Univ. of Utah*) 1955. [*Univ. of Utah College of Medicine*]. Salt Lake City, Utah
- Woody, Charles Dillon, A.B. (*Princeton Univ.*) 1957. Ridgewood, N. J.
- Zimon, Richard Philip, A.B. 1958. Chestnut Hill
- Zivin, Lawrence Sheldon, A.B. 1956, A.M. 1958. Denver, Colo.

THIRD CLASS (1963)

- *Adrian, Erle Keys, Jr., A.B. (*Rice Univ.*) 1958, A.M. (*Univ. of Texas*) 1961. [*Univ. of Texas Medical Branch*]. Temple, Texas
- °Anderson, William French, A.B. 1958, B.A. (*Univ. of Cambridge*) 1960. [*Univ. of Cambridge*]. Tulsa, Okla.
- Asher, David Michael, A.B. 1959. Chicago, Ill.
- *Bart, Jerome Barry, A.B. (*Dartmouth Coll.*) 1960. [*Dartmouth Medical School*]. Trumbull, Conn.
- Babineau, George Raymond, A.B. (*Bowdoin Coll.*) 1959. Hempstead, N. Y.
- Baker, Faith Ainsworth, A.B. (*Smith Coll.*) 1957. Brookline
- Beck, James Ciora, A.B. 1956, S.M. (*Yale Univ.*) 1957, PH.D. (*ibid.*) 1960. Chicago, Ill.
- Behrendt, Douglas Mather, A.B. (*Amherst Coll.*) 1959. Howard, R. I.
- Berman, Lawrence Joseph, A.B. (*Princeton Univ.*) 1959. Paterson, N. J.
- Bickel, Rudolf Gustav, S.B. (*Univ. of Michigan*) 1959. Detroit, Mich.
- Brubaker, Richard Fretwell, S.B. (*Davidson Coll.*) 1959. Macon, Ga.
- Buccino, Robert Anthony, A.B. (*Yale Univ.*) 1959. Easton, Conn.
- Bunn, Jack Calvin, A.B. (*Duke Univ.*) 1959. Bethesda, Md.
- Casarella, William Joseph, A.B. (*Yale Univ.*) 1959. Trenton, N. J.
- Cassady, James Robert, A.B. (*Univ. of Southern California*) 1959. Los Angeles, Calif.

‡ Admitted on basis of three years' college work.

° Transferred to the second year class.

* Transferred to the third year class.

HARVARD UNIVERSITY

- Clark, Peter Fred, A.B. (*Stanford Univ.*) 1959. *Riverside, Calif.*
- *Cobbs, Charles Glenn, A.B. (*Princeton Univ.*) 1955. [Medical Coll. of
Alabama]. *Birmingham, Ala.*
- Coran, Arnold Gerald, A.B. 1959. *Mattapan*
- Cowan, Dale Harvey, A.B. 1959. *University Heights, Ohio*
- Crews, Richard Lawrence, A.B. (*Williams Coll.*) 1959. *Scarsdale, N. Y.*
- Davis, Paul Joseph, A.B. (*Westminster Coll.*) 1959. *Park Ridge, Ill.*
- Duffy, Frank Hopkins, S.B. IN ENGIN. (*Univ. of Michigan*) 1958.
Birmingham, Mich.
- DuPont, Robert Louis, Jr., A.B. (*Emory Univ.*) 1958. *Decatur, Ga.*
- Dvorak, Harold Fisher, A.B. (*Princeton Univ.*) 1958. *Milwaukee, Wis.*
- Ehrenfeld, David William, A.B. 1959. *Passaic, N. J.*
- Ellis, George John, 3d, A.B. (*Centre College of Kentucky*) 1959.
Glasgow, Ky.
- Epstein, Ralph Alan, A.B. (*Columbia Univ.*) 1959. *Yonkers, N. Y.*
- Evans, Francis Cornelius, Jr., A.B. (*Princeton Univ.*) 1959.
Staten Island, N. Y.
- ‡Finstein, Irene Fox (*Boston Univ.*) *Winthrop*
- Foker, John Edward, A.B. 1959. *Minneapolis, Minn.*
- Foster, Robert Russell, A.B. 1959. *Princeton, N. J.*
- *Francis, Carolyn Kay, S.B. (*East Texas State Teachers Coll.*) 1958.
[*Baylor Univ. College of Medicine*]. *Galena Park, Texas*
- Franck, Peter Thompson, A.B. 1958. *Woodside, Calif.*
- Gelehrter, Thomas David, A.B. (*Oberlin Coll.*) 1957, B.A. (*Univ. of
Oxford*) 1959. *Shaker Heights, Ohio*
- Griffin, John Michael, A.B. (*Hamilton Coll.*) 1959. *Clinton, N. Y.*
- Gritzka, Thomas Lehman, A.B. 1959. *Portland, Ore.*
- Gudeman, Jon Edward, A.B. 1958. *Winnetka, Ill.*
- Halpin, Thomas Francis, Jr., S.B. (*Boston Coll.*) 1959. *Reading*
- Haynes, Harley Anderson, A.B. (*Princeton Univ.*) 1959. *Akron, Ohio*
- Henderson, Ralph Hale, A.B. 1959. *Pleasantville, N. Y.*
- Herzberg, Andrea, A.B. (*Stanford Univ.*) 1959. *Woodland Hills, Calif.*
- *Hicks, Richard Eldon, S.B. (*Univ. of North Dakota*) 1959. [Univ.
of North Dakota School of Medicine]. *Grand Forks, N. Dak.*
- *Hill, Curtis Lyle, A.B. (*Univ. of North Dakota*) 1960. [Univ. of
North Dakota School of Medicine]. *Fargo, N. Dak.*
- Howard, Stephen Donald, A.B. 1959. *Minneapolis, Minn.*
- Kates, William Wolfe, A.B. 1959. *Amherst*
- Keating, James Peter, A.B. 1959. *Pittsburgh, Pa.*

MEDICAL SCHOOL

- *Keller, Reed Theodore, A.B. (*Univ. of North Dakota*) 1960. [Univ. of North Dakota School of Medicine]. Rugby, N. Dak.
- Keusch, Gerald Tilden, A.B. (*Columbia Univ.*) 1958. New York, N. Y.
- Keutmann, Henry Todd, A.B. (*Amherst Coll.*) 1959. Rochester, N. Y.
- Klein, Donald Edward, A.B. (*Princeton Univ.*) 1959. Cranford, N. J.
- Klein, Harvey, S.B. (*Univ. of Chicago*) 1959. New York, N. Y.
- Lebowitz, Paul, A.B. (*Cornell Univ.*) 1959. Newark, N. J.
- Lerner, Stephen Alexander, A.B. 1959. Chicago, Ill.
- Lewit, Robert Todd, A.B. 1959. South Orange, N. J.
- Lindgren, Keith Merritt, A.B. 1958. Barrington, Ill.
- Lingley, James Flaglor, A.B. (*Yale Univ.*) 1959. Framingham
- Lockshin, Michael Dan, A.B. 1959. Northampton
- McBride, Kenneth Bernard, S.B. (*St. Peter's College*) 1959. Jersey City, N. J.
- Macon, William Linus, 4th, A.B. (*Princeton Univ.*) 1959. St. Louis, Mo.
- Martin, Albert Rene, S.B. (*Stanford Univ.*) 1959. San Francisco, Calif.
- Matthews, Larry Stanford, A.B. 1959. Boonville, Ind.
- *Mattson, William John, Jr., A.B. (*Dartmouth Coll.*) 1960. [Dartmouth Medical School]. Elmwood Park, Ill.
- Mendelsohn, John, A.B. 1958. Cincinnati, Ohio
- °Molliver, Mark Edward, A.B. 1958. [Yale Univ. School of Medicine]. Chelsea
- Monson, Richard Redding, S.B. (*North Dakota Agricultural Coll.*) 1958. Moorhead, Minn.
- Moolton, Frederick London, A.B. 1953. Highland Park, N. J.
- Moore, Gordon Tavss, A.B. 1959. Pittsburgh, Pa.
- Moore, Robert Booth, A.B. (*Vanderbilt Univ.*) 1958, A.M. (*ibid.*) 1959. North Little Rock, Ark.
- Mushinski, Joseph Frederic, A.B. (*Yale Univ.*) 1959. Bethesda, Md.
- Nash, Gerald, A.B. (*Princeton Univ.*) 1959. Cleveland Heights, Ohio
- Nies, Alan Sheffer, S.B. (*Stanford Univ.*) 1959. Orange, Calif.
- Novy, Miles Joseph, A.B. (*Yale Univ.*) 1959. Falls Village, Conn.
- Ogilvie, James Thomas, A.B. (*Univ. of Colorado*) 1959. Denver, Colo.
- *Okimoto, Joseph Tsutomu, A.B. (*Dartmouth Coll.*) 1960. [Dartmouth Medical School]. Pasadena, Calif.

HARVARD UNIVERSITY

- Olson, William Henry, Jr., A.B. (*Wesleyan Univ.*) 1958.
Colorado Springs, Colo.
- Oxman, Michael Neil, A.B. 1958.
New Rochelle, N. Y.
- Papermaster, David Samuel, A.B. 1959.
Fargo, N. D.
- Parker, Bruce Robert, A.B. 1959.
Detroit, Mich.
- *Penza, James Francis, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School].
Marblehead
- Peterson, Wesley Peter, S.B. (*Allegheny College*) 1959.
Jamestown, N. Y.
- Philippart, Arvin Ignatius, 3d, A.B. (*Univ. of Michigan*) 1959.
West Bridgewater
- Philipson, Joseph Bion, Jr., A.B. 1959.
Idaho Falls, Idaho
- Plotz, Paul Hunter, A.B. 1958.
Brooklyn, N. Y.
- Preven, David W., A.B. 1959.
Scranton, Pa.
- Prien, Edwin Louis, Jr., A.B. 1959.
Waban
- *Rawitscher, Robert Edward, S.B. (*Univ. of Wisconsin*) 1959. [Univ. of North Dakota School of Medicine].
Williston, N. Dak.
- Rayel, Peter Axelrod, A.B. 1959.
Los Angeles, Calif.
- *Reiss, Luce Lauer, A.B. (*Radcliffe Coll.*) 1959. [New York Univ. College of Medicine].
New York, N. Y.
- *Remmers, John Edward, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School].
Anchorage, Ky.
- Richardson, John Robert, Jr., A.B. 1959.
Wellesley Hills
- Riordan, Charles Edward, A.B. (*Coll. of the Holy Cross*) 1959.
New York, N. Y.
- Roberts, Donald Bruce, S.B. (*California Inst. of Technology*) 1955.
Yakima, Wash.
- *Robertson, Kenneth Blake, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School].
Keene, N. H.
- *Rockenmacher, Sol, A.B. (*Dartmouth Coll.*) 1960. [Dartmouth Medical School].
Redondo Beach, Calif.
- Rosen, David Lee, A.B. 1959.
University Heights, Ohio
- Rozett, Ronald Tilden, A.B. (*New York University*) 1959.
Brooklyn, N. Y.
- Rutman, Joel, A.B. (*Brandeis Univ.*) 1959. Beechwood Village, Ohio
- Sachar, David Bernard, A.B. 1959.
Newtonville
- Sampson, Richard Joseph, A.B. (*Univ. of Notre Dame*) 1959.
Los Angeles, Calif.
- Sanders, Jay Henry, A.B. (*Colgate Univ.*) 1959.
Elmont, N. Y.

MEDICAL SCHOOL

- *Saphir, James Robin, A.B. (*Dartmouth Coll.*) 1957. [Dartmouth Medical School]. Highland Park, Ill.
- Savitz, David, A.B. 1958. New York, N. Y.
- Shore, Neil Samuel, A.B. (*Princeton Univ.*) 1959. Elkins Park, Pa.
- Simpson, Robert Todd, A.B. (*Swarthmore Coll.*) 1959. Pleasant Ridge, Mich.
- Sisson, Warden Barr, A.B. (*Pomona Coll.*) 1959. Los Angeles, Calif.
- Smith, Stephen Ross, A.B. (*Princeton Univ.*) 1959. Rosemont, Pa.
- Snodgrass, Samuel Robert, Jr., A.B. 1959. Galveston, Tex.
- Speidel, John Joseph, A.B. 1959. Minneapolis, Minn.
- *Stagg, Arthur Ritchey, A.B. (*Dartmouth Coll.*) 1960. [Dartmouth Medical School]. Medfield
- Steele, Robert Edwin, Jr., A.B. (*Univ. of Missouri*) 1959. Nevada, Mo.
- Stocker, William Althen, A.B. (*Carleton Coll.*) 1958. Springfield, Ill.
- *Swenson, David Dean, A.A. (*Bismark Jr. Coll.*) 1955, A.B. (*Gustavus Adolphus Coll.*) 1957. [Univ. of North Dakota School of Medicine]. Bismark, N. Dak.
- Tihen, William Spear, S.B. (*Univ. of Wyoming*) 1959. Laramie, Wyo.
- *Towle, Murray Albert, A.B. (*Dartmouth Coll.*) 1959. [Dartmouth Medical School]. Hampton, N. H.
- Troost, Bradley Todd, S.B. (*Yale Univ.*) 1959. Mankato, Minn.
- Turkington, Roger Wayne, A.B. (*Wesleyan Univ.*) 1958. Manchester, Conn.
- Uahwatanasakul, Yong, A.B. 1959. Bangkok, Thailand
- Vermillion, Clinton Dale, A.B. (*Univ. of Kansas*) 1958. Goodland, Kans.
- Vineyard, Gordon Campbell, B.E. (*Yale Univ.*) 1959. Little Rock, Ark.
- *Virnelli, Frank Robert, A.B. (*Dartmouth Coll.*) 1960. [Dartmouth Medical School]. Saugus
- Ward, Samuel Porter, A.B. (*Amherst Coll.*) 1959. Lake Bluff, Ill.
- Warshaw, Andrew Louis, A.B. 1959. Jamaica, N. Y.
- Whitlow, Dennis Reed, A.B. (*Columbia Univ.*) 1959. Pocatello, Idaho
- Williams, Gordon Harold, A.B. 1959. Kansas City, Kans.
- Wilson, Norman Louis, Jr., S.B. (*Yale Univ.*) 1959. Buffalo, N. Y.
- Winter, William Gordon, Jr., A.B. (*Pomona Coll.*) 1958. Fresno, Calif.

HARVARD UNIVERSITY

- Wolf, Katharine Corwin Poole, A.B. (*Radcliffe Coll.*) 1959. Pasadena, Calif.
 Wolf, Marshall Alan, A.B. 1958. Chicago, Ill.
 Zimmerman, Theodore Samuel, A.B. 1959. Clayton, Mo.
 Zinner, John, A.B. (*Amherst Coll.*) 1958. Great Neck, N. Y.

SECOND CLASS (1964)

- Aldredge, Horatio Ransome, 3d, A.B. (*The Rice Institute*) 1960. Santa Monica, Calif.
 °Anderson, Kathryn Duncan, B.A. (*Univ. of Cambridge*) 1961. [Univ. of Cambridge, Faculty of Medicine]. Westbury-on-Trym, Bristol, England
 §Bennett, Terry Michael (*Univ. of Southern Calif.*). San Marino, Calif.
 Bernard, Roger Peterick, A.B. (*Yale Univ.*) 1960. Torrington, Conn.
 Bienfang, Don Carl, S.B. (*Univ. of Illinois*) 1960. Elmhurst, Ill.
 Bookwalter, John Robert, A.B. (*Amherst Coll.*) 1960. Columbiana, Ohio
 Bradford, Michael Jay, A.B. (*Yale Univ.*) 1960. Brooklyn, N. Y.
 Brown, Borden, A.B. 1960. Fall River
 Burns, Arlen Birk, S.B. (*Southern Methodist Univ.*) 1960. Dallas, Texas
 Bittenwieser, Paul Arthur, A.B. 1960. New York, N. Y.
 Byar, David Peery, A.B. (*Emory Univ.*) 1960. Maryville, Tenn.
 Cantril, Simeon Thain, A.B. (*Dartmouth Coll.*) 1960. Edmonds, Wash.
 Chapin, David Saul, A.B. 1960. Buffalo, N. Y.
 Chapman, Paul Hamilton, S.B. (*Yale Univ.*) 1960. Cuyahoga Falls, Ohio
 Chase, Lewis Robert, A.B. (*Princeton Univ.*) 1960. Ho Ho Kus, N. J.
 Chylack, Leo Theodore, Jr., S.B. (*Yale Univ.*) 1960. Allentown, Pa.
 Cooper, Joel David, A.B. 1960. Charleston, W. Va.
 Corlette, Marvin Brown, Jr., A.B. (*Stanford Univ.*) 1960. Pasadena, Calif.

‡ Admitted on basis of three years' college work.

§ Admitted on basis of four years' college work.

° Transferred to the second year class.

MEDICAL SCHOOL

- Cox, William Vernon, 2d, A.B. (*Princeton Univ.*) 1959.
Auburn, Maine
- Cranston, Florence Pitkin, A.B. (*Mt. Holyoke Coll.*) 1960.
Claremont, Calif.
- ‡Cranton, Elmer Mitchell (*Univ. of Colorado*).
Groveland
- Crespin, Stephen Ralph, A.B. 1960.
Cincinnati, Ohio
- Cronk, Richard Vincent, A.B. (*Univ. of Pennsylvania*) 1960.
St. Petersburg, Fla.
- Crystal, Raymond Frederick, A.B. (*Yale Univ.*) 1960.
Great Neck, N. Y.
- Dean, Andrew Griswold, A.B. (*Oberlin Coll.*) 1960.
Fairport, N. Y.
- Eaton, Stanley Boyd, Jr., A.B. (*Duke Univ.*) 1960.
Huntington, W. Va.
- Ehrlich, Ira Bert, A.B. (*Stanford Univ.*) 1960.
Phoenix, Ariz.
- Ettinger, Bruce, A.B. (*Columbia Univ.*) 1960.
Jamaica, N. Y.
- Falk, George Alan, A.B. 1960.
New York, N. Y.
- Flickinger, Charles John, A.B. (*Dartmouth Coll.*) 1960.
Bethlehem, Pa.
- Fung, Christopher Hing Kui, A.B. 1960.
Hong Kong
- Galdabini, James Joseph, A.B. (*Coll. of the Holy Cross*) 1960.
Milwaukee, Wis.
- °Ghez De Castelnuovo, Claude Paul Joseph, BACC.-ÈS-SCI.-MÉD. (*Univ. of Geneva*) première partie, 1959; BACC.-ÈS-SCI.-MÉD. (*ibid.*) deuxième partie, 1961. [Univ. of Geneva, Faculty of Medicine].
Geneva, Switzerland
- Givelber, Harry Michael, A.B. 1960.
Cleveland Heights, Ohio
- Glickman, Robert Morris, A.B. (*Amherst Coll.*) 1960.
Brooklyn, N. Y.
- Guggenheim, Stephen Joel, A.B. 1960.
Denver, Colo.
- Hartmann, Lawrence Maximilian, A.B. 1958, B.A. (*Univ. of Oxford*) 1960.
New York, N. Y.
- Havens, David Ward, A.B. (*Univ. of Rochester*) 1960.
Westhampton Beach, N. Y.
- Himmelhoch, Jonathan Moses, A.B. 1960.
Detroit, Mich.
- Holloway, George Allen, Jr., A.B. (*Yale Univ.*) 1960.
New Canaan, Conn.
- Hopkins, Robert Parker, A.B. (*Amherst Coll.*) 1960.
Hingham
- Horowitz, Stanley Alan, A.B. (*Columbia Univ.*) 1960.
Brooklyn, N. Y.
- Hoyer, John Richard, A.B. (*Grinnell Coll.*) 1960.
Windom, Minn.

HARVARD UNIVERSITY

- Hulley, Stephen Benjamin, A.B. (*Amherst Coll.*) 1960. Hyannis
Hurd, Joseph Kindall, Jr., A.B. 1960. Pueblo, Colo.
Hyde, Ernest Frederick, Jr., A.B. (*Kenyon Coll.*) 1960. Carmichaels, Pa.
Irvine, Alexander Rodman, A.B. (*Princeton Univ.*) 1960. Beverly Hills, Calif.
Jackman, Jay Myron, A.B. (*Columbia Univ.*) 1960. Brooklyn, N. Y.
Jackson, Stephen Harvey, A.B. (*Princeton Univ.*) 1960. Jersey City, N. J.
Jaqua, Richard Allan, A.B. (*Yale Univ.*) 1960. Humboldt, Iowa
Kaltreider, Henry Benfer, A.B. 1960. Rochester, N. Y.
Kaltreider, Nancy Bowen, A.B. (*Univ. of Connecticut*) 1960. Wellesley Hills
Karchmer, Adolf Waller, A.B. (*Princeton Univ.*) 1960. Memphis, Tenn.
Keller, Albert Richard, A.B. 1960. Redmond, Wash.
Kim, Joseph Chol, A.B. (*St. Anselm's Coll.*) 1958. Seoul, Korea
Kirchman, Ernest Henry, A.B. (*Princeton Univ.*) 1960. Jamaica, N. Y.
Latt, Samuel Arch, S.B. (*Massachusetts Inst. of Technology*) 1960. Harrisburg, Pa.
Lawrence, Robert Swan, A.B. 1960. West Hartford, Conn.
Leff, Robert, A.B. (*Columbia Univ.*) 1960. Brooklyn, N. Y.
Leighton, Charles Cutler, A.B. (*Colby Coll.*) 1960. Newton Centre
Levin, Myron Jay, A.B. 1960. Washington, D. C.
London, Wayne Paul, A.B. (*Washington and Jefferson Coll.*) 1960. Johnstown, Pa.
Lynch, Robert Emmett, 3d, A.B. 1960. Atlanta, Ga.
McCarley, Robert William, A.B. 1959. Mayfield, Ky.
MacGregor, Rob Roy, 3d, A.B. (*Princeton Univ.*) 1960. Glen Ridge, N. J.
McReynolds, John Stephens, A.B. (*Princeton Univ.*) 1960. Houston, Texas
Mazer, Frederick Louis, A.B. (*Yale Univ.*) 1960. Longmeadow
Miller, Bruce Lawrence, S.B. (*Univ. of New Hampshire*) 1960. Hinsdale, N. H.
Mitchell, Donald Waldo, A.B. (*Stanford Univ.*) 1960. Palo Alto, Calif.
Mueller, John Charles, A.B. 1960. Sterling, Ill.

MEDICAL SCHOOL

- Nieland, Michael Louis, A.B. 1960. *Chestnut Hill*
- Northrup, Robert Smither, A.B. (*Yale Univ.*) 1960. *Westfield, N. Y.*
- °Nuzum, Claude Thomas, A.B. 1959. [Univ. of Cambridge, Faculty of Medicine]. *Lexington, Ky.*
- O'Connor, Robert Emmett, A.B. (*Princeton Univ.*) 1957. *Charleston, W. Va.*
- O'Neil, William Anthony, S.B. (*Boston Coll.*) 1954, S.M. (*ibid.*) 1960. *Franklin*
- °Ontjes, David Ainsworth, A.B. (*Univ. of Kansas*) 1959. [Univ. of Oxford, Faculty of Medicine]. *Hutchinson, Kans.*
- Pfeffer, Robert Isa, A.B. (*Princeton Univ.*) 1960. *Eggertsville, N. Y.*
- Purves, Dale, A.B. (*Yale Univ.*) 1960. *Philadelphia, Pa.*
- Putnam, Samuel Morse, A.B. 1960. *Concord*
- Rapo, Seppo Ensio, S.B. (*Wheaton Coll.*) 1960. *Quincy*
- Rasminsky, Michael, A.B. (*Univ. of Toronto*) 1959. *Ottawa, Ont., Canada*
- Raye, John Ramsey, A.B. (*Amherst Coll.*) 1960. *Wellesley Hills*
- § Ream, John Rodney, Jr. (*Reed Coll., U. S. Military Academy, Univ. of Utah*). *Dingle, Idaho*
- Reynolds, Robert Edgar, A.B. (*Yale Univ.*) 1960. *Xenia, Ohio*
- Rhoads, Jonathan Evans, Jr., A.B. (*Haverford Coll.*) 1960. *Philadelphia, Pa.*
- Riddle, Matthew Casey, Jr., A.B. (*Yale Univ.*) 1960. *Portland, Oregon*
- Ries, Jane, A.B. (*Radcliffe Coll.*) 1960. *Forest Hills, N. Y.*
- Rodarte, Joseph Robert, A.B. (*The Rice Institute*) 1960. *Temple, Texas*
- Rubenstein, Joel Jay, A.B. 1960. *Newton*
- Sabin, James Evan, A.B. 1960. *New York, N. Y.*
- Schefrin, Michael Ralph, A.B. (*Princeton Univ.*) 1960. *Beverly Hills, Calif.*
- Schoessler, Mary Anne, A.B. (*Willamette Univ.*) 1957. *Yakima, Wash.*
- Schroeder, Steven Alfred, A.B. (*Stanford Univ.*) 1960. *El Cerrito, Calif.*
- Scott, Robert Augustine Thornton, A.B. 1960. *Lexington, Ky.*
- Seidman, Joel Myron, A.B. 1960. *Framingham*
- Shackney, Stanley Emanuel, A.B. 1960. *Rockfall, Conn.*
- Shapiro, Arthur Gerald, A.B. (*Columbia Univ.*) 1960. *Belle Harbor, N. Y.*
- Silverman, Joel Peter, A.B. (*Columbia Univ.*) 1960. *New York, N. Y.*

HARVARD UNIVERSITY

- Steck, Theodore Lyle, s.B. (*Lawrence Coll.*) 1960. *Highland Park, Ill.*
 Steinglass, Peter Joseph, A.B. (*Union Coll.*) 1960. *Jamaica, N. Y.*
 Strathmann, William Danford, A.B. (*Pomona Coll.*) 1960. *Claremont, Calif.*
 Swarr, James Howard, s.B. (*Juniata Coll.*) 1960. *Lititz, Pa.*
 Thach, William Thomas, Jr., A.B. (*Princeton Univ.*) 1959. *Oklahoma City, Okla.*
 Thum, Charles Wesley, A.B. 1960. *Claremont, Calif.*
 Tsien, Elaine Mei-Yuen, A.B. (*Wellesley Coll.*) 1960. *Hong Kong*
 Tudor, John Mack, Jr., A.B. (*Hendrix Coll.*) 1960. *North Little Rock, Ark.*
 Vernon, Thomas Martin, Jr., A.B. (*Duke Univ.*) 1960. *West Palm Beach, Fla.*
 Volpe, Joseph John, A.B. (*Bowdoin Coll.*) 1960. *Salem*
 Wallin, Victor William, Jr., A.B. (*Princeton Univ.*) 1960. *Milwaukee, Wis.*
 Wiese, William Hastings, A.B. (*Yale Univ.*) 1960. *Wellesley Hills*
 Williams, Frank Mathews, B.E. (*Yale Univ.*) 1960. *Bartow, Fla.*
 Witebsky, Frank Gilbert, A.B. 1960. *Buffalo, N. Y.*
 Young, Lowell Sung-Yi, A.B. (*Princeton Univ.*) 1960. *Honolulu, Hawaii*
 Zimmerman, Phil George, A.B. (*Ohio Univ.*) 1960. *Holgate, Ohio*
 Zuerner, Richard Taylor, A.B. 1960. *Norwich, Conn.*

FIRST CLASS (1965)

- Aadalen, Richard Jerome, A.B. 1961. *Red Wing, Minn.*
 Adams, Herbert Dan, A.B. (*Yale Univ.*) 1961. *Wellesley Hills*
 Anderson, Larry Simon, A.B. (*Univ. of Washington*) 1961. *Santa Rosa, Calif.*
 Avent, Charles Kirk, 2d, A.B. (*Vanderbilt Univ.*) 1961. *Tupelo, Miss.*
 Baldwin, Stanley Sherman, A.B. (*Princeton Univ.*) 1961. *Marshfield, Wis.*
 Barry, William Harvey, s.B. (*Yale Univ.*) 1961. *Tulsa, Okla.*
 Bernstein, Robert S, A.B. (*Columbia Univ.*) 1961. *New York, N. Y.*
 Black, Ira Barrie, A.B. (*Columbia Univ.*) 1961. *Bronx, N. Y.*
 Bodenheimer, Thomas Siegmund, A.B. 1961. *Salt Lake City, Utah*

‡ Admitted on the basis of three years' college work.

MEDICAL SCHOOL

- Brisman, Ronald, A.B. 1961. *Brooklyn, N. Y.*
 Brown, Stephen Morris, A.B. (*Princeton Univ.*) 1961. *Jamaica, N. Y.*
 Bunim, Lesley Schild, A.B. (*Barnard Coll.*) 1961. *Chevy Chase, Md.*
 Burge, Boyce William, S.B. (*Univ. of Nevada*) 1961. *Sparks, Nev.*
 Burstein, Nelson Allan, A.B. (*Oberlin Coll.*) 1961. *Toledo, Ohio*
 Carmody, John Lancaster, A.B. (*Yale Univ.*) 1961. *Paxton*
 Casella, Charles Wickersham, A.B. 1961. *Naugatuck, Conn.*
 Chabner, Bruce Allan, A.B. (*Yale Univ.*) 1961. *Shelbyville, Ill.*
 Chambers, David Wade, A.B. (*Univ. of Oklahoma*) 1960. *Enid, Okla.*
 Clark, William Dexter, A.B. 1961. *Cincinnati, Ohio*
 Clermont, Gerald Harvey, S.B. (*Coll. of the Holy Cross*) 1961. *Adams*
 Cohen, Max Harry, A.B. (*Columbia Univ.*) 1961. *Macon, Ga.*
 Cooke, John Cary, 3d, A.B. (*Rice Univ.*) 1961. *Abilene, Texas*
 Cornell, Richard, A.B. (*Bowdoin Coll.*) 1961. *Fall River*
 Cox, Paul Milton, Jr., S.B. (*Massachusetts Inst. of Technol.*) 1961. *Sayreville, N. J.*
 Crumpacker, Clyde S, 2d, A.B. (*Cornel Univ.*) 1961. *Tabor, N. J.*
 Donahower, George Franklin, A.B. (*Denison Univ.*) 1961. *Shaker Heights, Ohio*
 DuBrow, Edward Lewis, A.B. (*Princeton Univ.*) 1961. *Hartford, Conn.*
 Dunkman, William Bruce, A.B. (*Amherst Coll.*) 1961. *Rochester, N. Y.*
 Farhad, Mina, A.B. (*Barnard Coll.*) 1957, A.M. (*Radcliffe Coll.*) 1958. *Teheran, Iran*
 Fisher, George Underwood, S.B. (*Wittenberg Univ.*) 1961. *New Castle, Ind.*
 Fisher, Morris Alan, A.B. (*Yale Univ.*) 1961. *New York, N. Y.*
 Fisher, Thomas Leonard, A.B. 1959. *Colima, Mexico*
 Gershon, Elliot Sheldon, A.B. 1961. *Brooklyn, N. Y.*
 Gilmore, Edward Bettie, A.B. (*Wesleyan Univ.*) 1961. *Clairton, Pa.*
 Godfrey, Henry Philip, A.B. 1961. *New York, N. Y.*
 Goldsmith, Raphael Kenneth, A.B. 1961. *Bedford Village, N. Y.*
 Goldstein, Robert Edward, A.B. 1961. *Rochester, N. Y.*
 Graybiel, Ashton Lynd, A.B. 1961. *Warrington, Fla.*
 Greene, Martin Lee, A.B. 1961. *Omaha, Nebr.*
 Guiney, Timothy Edward, S.B. (*Boston Coll.*) 1961. *Canton*
 Gunn, Robert Burns, S.B. (*Univ. of Michigan*) 1961. *Washington, D. C.*
 Gurwith, Marc Joseph, A.B. (*Yale Univ.*) 1961. *Mission, Kans.*
 Hajek, Joseph Valentine, A.B. 1958. *New York, N. Y.*

HARVARD UNIVERSITY

- Haughie, Glenn Elmer, A.B. 1961. Clarkfield, Minn.
- Hollenberg, Robert David, A.B. (*Swarthmore Coll.*) 1961. Winnipeg, Manitoba, Canada
- Hufnagel, Dorothy Anne, A.B. (*Rutgers Univ.*) 1957, A.M. (*Columbia Univ.*) 1959. Jersey City, N. J.
- Hughes, Edward Miles, A.B. (*Wesleyan Univ.*) 1961. Glen Ridge, N. J.
- Hyland, Robert Norman, A.B. (*Northwestern Univ.*) 1960. Evanston, Ill.
- Jacobson, Eric Steven, A.B. (*Northwestern Univ.*) 1961. Ontario, Calif.
- Joseph, Neil Howard, S.B. (*Union Coll.*) 1961. Jamaica, N. Y.
- Kane, Robert Lewis, A.B. (*Columbia Univ.*) 1961. Valley Stream, N. Y.
- Kapelovitz, Leonard Herman, S.B. (*Univ. of Chicago*) 1961. Dickinson, N. Dak.
- Kenyon, Charles Dickson, A.B. (*DePauw Univ.*) 1961. Cambridge City, Ind.
- King, Alan Shelly, S.B. (*Juniata Coll.*) 1961. Rochester, N. H.
- Kondon, John Joseph, Jr., A.B. 1961. Peabody
- ‡Krenis, Laurence Joel (*New York Univ.*). North Bellmore, N. Y.
- Kuehl, Walter Michael, A.B. 1961. Park Ridge, Ill.
- Lane, Joseph Michael, A.B. (*Columbia Univ.*) 1961. Great Neck, N. Y.
- Lange, Gretchen, A.B. (*Radcliffe Coll.*) 1959. Tucson, Ariz.
- Langer, Joel Elliott, S.B. (*The City Coll. of New York*) 1961. New York, N. Y.
- Langer, Terry, A.B. (*New York Univ.*) 1961. Jamaica, N. Y.
- Langston, Charles Spencer, A.B. 1961. Great Neck, N. Y.
- Levin, Arthur Lawrence, A.B. 1961. Newton Centre
- Loescher, Richard Alvin, A.B. (*DePauw Univ.*) 1961. Hinsdale, Ill.
- McCrae, Charles Rodger, A.B. 1961. Warren, Ohio
- McKay, David Andrew, S.B., (*Allegheny Coll.*) 1961. Sharpsville, Pa.
- McNamara, John Joseph, S.B. (*Boston Coll.*) 1961. Milton
- Mallory, Andrew, A.B. (*Amherst Coll.*) 1961. Havertown, Pa.
- Mark, Roger Greenwood, S.B. (*Massachusetts Inst. of Technol.*) 1960. Chestnut Hill
- Mills, John, S.B. (*Univ. of Chicago*) 1961. Rochester, N. Y.
- Mueller, Kenneth Howard, S.B. (*Carroll Coll.*) 1961. Hutisford, Wis.
- Muzzarelli, Uberto Tommaso, A.B. (*Amherst Coll.*) 1961. Fermo, Italy
- Neeley, George Richard, A.B. (*Stanford Univ.*) 1961. Altadena, Calif.
- Nelson, James Alonzo, A.B. 1961. Cherokee, Iowa

MEDICAL SCHOOL

- Oberlander, Samuel Guy, A.B. (*Hobart Coll.*) 1961. Brooklyn, N. Y.
 Omenn, Gilbert Stanley, A.B. (*Princeton Univ.*) 1961. Chester, Pa.
 Pollock, Edward Jay, A.B. (*Northwestern Univ.*) 1961. Skokie, Ill.
 Poser, Gary Evan, A.B. (*Cornell Univ.*) 1961. Rocky River, Ohio
 Quereau, Marcia Musser, A.B. (*Vassar Coll.*) 1961. Wyomissing, Pa.
 Ratzan, Kenneth Roy, A.B. (*Amherst Coll.*) 1961. Cedarhurst, N. Y.
 Reider, Arthur Elliott, A.B. 1958. San Francisco, Calif.
 Reiling, Walter Anthony, Jr., S.B. (*Univ. of Dayton*) 1961. Dayton, Ohio
 Rhoads, George Grant, A.B. (*Haverford Coll.*) 1961. Philadelphia, Pa.
 Richardson, Frank Elmer, A.B. (*Princeton Univ.*) 1961. Sewickley, Pa.
 Riker Jeffrey Bruce, A.B. (*Columbia Univ.*) 1961. Flushing, N. Y.
 Roath, Michael Steven, A.B. (*Stanford Univ.*) 1961. Rolling Hills City, Calif.
 Roots, Logan Herbert, A.B. (*Hamilton Coll.*) 1961. White Plains, N. Y.
 Rosenberg, Eugene Barry, A.B. 1961. Brooklyn, N. Y.
 Roth, Loren Henry, A.B. (*Cornell Univ.*) 1961. Shaker Heights, Ohio
 Schniewind, Henry Ernest, A.B. 1961. Locust Valley, N. Y.
 Schnur, James Alfred, A.B. (*New York Univ.*) 1961. Yonkers, N. Y.
 ‡Schulman, Joseph Daniel (*Brooklyn Coll.*). Brooklyn, N. Y.
 Scolnick, Edward Mark, A.B. 1961. Dorchester
 Seder, Richard Henry, A.B. 1960. Worcester
 Selden, Richard, A.B. (*Northwestern Univ.*) 1961. Sterling, Ill.
 Sheridan, Judson Dean, S.B. (*Hamline Univ.*) 1961. Minneapolis, Minn.
 Shurin, Paul Anton, A.B. (*Brooklyn Coll.*) 1961. Ardsley, N. Y.
 Simmers, William Moody, A.B. (*Princeton Univ.*) 1961. Cambridge
 Simpson, Karen Evelyn, A.B. (*Swarthmore Coll.*) 1961. Pleasant Ridge, Mich.
 Smith, Thomas Woodward, A.B. 1958. Akron, Ohio
 Snyder, Peter Joseph, A.B. (*Williams Coll.*) 1961. Wilmington, Del.
 Sox, Harold Carleton, Jr., S.B. (*Stanford Univ.*) 1961. Atherton, Calif.
 Stachura, Maximillian Edward, A.B. (*Hamilton Coll.*) 1961. Buffalo, N. Y.
 Stage, David Elliott, A.B. (*Yale Univ.*) 1961. Santa Ana, Calif.
 Stein, Jeffrey Alan, A.B. 1960. Jamaica, N. Y.
 Stenson, Robert Elliot, S.B. (*Massachusetts Inst. of Technol.*) 1960. Philadelphia, Pa.

HARVARD UNIVERSITY

- Stewart, Douglas Keith, s.B. (*California Inst. of Technol.*) 1961.
Burlingame, Calif.
- Stewart, Michael Maccracken, A.B. (*Princeton Univ.*) 1957.
Princeton, N. J.
- Stiglitz, Mark Lawrence, A.B. (*Amherst Coll.*) 1961.
Gary, Ind.
- Stoll, Ralph William, s.B. (*Univ. of California*) 1958. *Salamanca, N. Y.*
- Strober, Samuel, A.B. (*Columbia Univ.*) 1961. *Brooklyn, N. Y.*
- Sun, Andrew Suian On, s.B. (*Univ. of California*) 1961.
San Francisco, Calif.
- Swett, Chester Parker, Jr., s.B. (*Denison Univ.*) 1961. *Lancaster, Ohio*
- Trelstad, Robert Laurence, A.B. (*Columbia Univ.*) 1961.
Salem, Oregon
- Wandel, Thaddeus Ludwig, A.B. 1961.
Boston
- Wishner, Stanley Herman, A.B. (*Franklin and Marshall Coll.*) 1961.
Chester, Pa.
- Wolf, Laurence Engler, A.B. 1961. *Houston, Texas*
- ‡Young, Philip Earl, A.B. (*Univ. of California*) 1961.
Los Angeles, Calif.

MEDICAL SCHOOL SUMMARY 1961-1962

Fourth Year	115
Third Year	130
Second Year	115
First Year	118
Total	<hr/> 478

COLLEGES REPRESENTED

Albion College	2	Hamilton College	3
Albright College	1	Hamline University	1
Allegheny College	2	Harvard University	133
Amherst College	20	Haverford College	3
Augustana Theological Seminary	1	Hendrix College	1
Barnard College	2	Hiram College	1
Bismark Junior College	1	Hobart College	2
Boston College	6	Holy Cross, College of the	5
Boston University	2	Illinois, University of	1
Bowdoin College	3	Iowa State College	1
Brandeis University	1	Juniata College	2
Brooklyn College	2	Kansas, University of	2
Bryn Mawr College	2	Kenyon College	1
California Institute of Tech-		Lawrence College	1
nology	2	Massachusetts Institute of Tech-	
California, University of	1	nology	7
California, University of (at		Miami, University of	1
Los Angeles)	3	Michigan, University of	4
California, University of South-		Minnesota, University of	1
ern	2	Mississippi, University of	1
Cambridge, University of (Eng-		Missouri, University of	1
land)	2	Mount Holyoke College	1
Carleton College	1	National Defense Medical Cen-	
Carroll College	1	ter (Formosa)	1
Centre College of Kentucky ..	1	Nevada, University of	1
Chicago, University of	3	New Asia College (Hong	
Colby College	1	Kong)	1
Colgate University	1	New Hampshire, University of	1
Colorado, University of	2	New York, The City College of	1
Columbia University	22	New York University	5
Connecticut, University of	1	North Dakota, University of	5
Cornell University	7	North Dakota Agricultural Col-	
Dartmouth College	22	lege	1
Davidson College	2	Northwestern University	4
Dayton, University of	1	Norwich University	1
Denison University	2	Notre Dame, University of ..	1
DePauw University	2	Oberlin College	3
Duke University	4	Ohio University	1
Emory University	2	Oklahoma, University of	2
Franklin and Marshall College .	1	Oxford, University of (Eng-	
Geneva, University of	1	land)	4
Gettysburg College	1	Pacific Union College	1
Grinnell College	1	Paris, Université de (à La Sor-	
Gustavus Adolphus College	1	bonne)	1

HARVARD UNIVERSITY

Pennsylvania, University of	2	Vanderbilt University	2
Pittsburgh, University of	1	Vassar College	3
Pomona College	3	Virginia, University of	2
Princeton University	39	Washington, University of	1
Radcliffe College	5	Washington and Jefferson Col- lege	1
Reed College	1	Wellesley College	1
Rice University	5	Wesleyan University	4
Rochester, University of	1	Western Reserve University ..	1
Rutgers University	1	Westminster College	1
Saint Anselm's College	1	Wheaton College (Illinois) ...	1
Saint Peter's College	1	Willamette University	1
San Francisco, University of ...	1	Williams College	3
Smith College	3	Wisconsin, University of	1
Sorbonne (<i>see Paris</i>)		Wittenberg University	1
South, University of the	1	Wofford College	1
Southern Methodist University	1	Wyoming, University of	1
Stanford University	13	Yale University	40
Swarthmore College	3	Yankton College	1
Texas, State Teachers College East	1	Total	503
Texas, University of	1	Counted more than once	25
Thiel College	1		
Toronto, University of	1	Total number of students	478
Tufts University	1		
Union College	4	Entered advanced standing	40
United States Military Academy	1	Number of colleges represented	121
Utah, University of	2	Number of college graduates	472
Valparaiso University	1	Number of non-graduates	6

MEDICAL SCHOOLS REPRESENTED BY STUDENTS WHO ENTERED HARVARD MEDICAL SCHOOL WITH ADVANCED STANDING

Alabama, The Medical College of	1	Oxford, University of (England)	1
Baylor University College of Medicine	1	South Dakota, State University of	1
Cambridge, University of (Eng- land)	3	Texas, University of	1
Dartmouth	20	Utah, University of	1
Geneva, University of	1	Yale University	1
Johns Hopkins University	1	Total	40
New York University	1		
North Dakota, University of ..	6	Total number of students ad- mitted to first year standing	438
		Total	478

SCHOOL OF DENTAL MEDICINE

STAFF

- JAMES L. ACKERMAN, D.D.S., *Research Fellow in Orthodontics.*
ERNEST E. ADAMS, D.M.D., *Instructor in Operative Dentistry.*
JOHN T. ALBRIGHT, D.D.S., *Clinical Associate in Oral Pathology.*
BENJAMIN H. AMDUR, PH.D., *Research Associate in Biological Chemistry at the Forsyth Dental Infirmary.*
MELVIN A. ANDELL, D.D.S., *Instructor in Orthodontics.*
WILSON C. DE ARAUJO, D.D.S., *Research Fellow in Bacteriology.*
DAVID T. ARMSTRONG, PH.D., *Research Associate in Anatomy in the School of Dental Medicine.*
HARRY K. BAILEY, D.M.D., *Instructor in Operative Dentistry.*
ARNOLD E. BINDER, D.M.D., *Assistant in Orthodontics.*
NEVILLE A. BOOTH, D.M.D., *Instructor in Oral Surgery.*
CHARLES L. BOYERS, JR., D.M.D., *Clinical Associate in Pediatric Dentistry (resigned August 31, 1961).*
FINN BRUDEVOLD, D.D.S., *Professor of Dentistry at the Forsyth Dental Infirmary.*
GEORGE CHRISTMAN, D.M.D., *Instructor in Oral Surgery.*
CARL G. COHEN, D.M.D., *Instructor in Operative Dentistry.*
MELVIN I. COHEN, D.M.D., *Assistant Clinical Professor of Orthodontics.*
HERMAN DEWILDE, M.D., D.M.D., *Clinical Associate in Oral Surgery.*
JOEL P. DOUGLAS, D.M.D., *Research Fellow in Orthodontics.*
JAMES M. DUNNING, D.D.S., M.P.H., *Assistant Clinical Professor of Public Health Dentistry.*
HAROLD L. EHRLICH, D.M.D., *Assistant Clinical Professor of Prosthetic Dentistry.*
HENRY D. EPSTEIN, D.M.D., *Clinical Associate in Dental Medicine.*
JAMES W. ETHERINGTON, D.M.D., *Assistant Clinical Professor of Operative Dentistry.*

HARVARD UNIVERSITY

- ELIZABETH A. FANNING, B.D.S., *Instructor in Dental Medicine* (through October 31, 1961).
- DAVID J. FARRELL, D.M.D., *Assistant Clinical Professor of Prosthetic Dentistry*.
- NORTON FISHMAN, D.M.D., *Instructor in Prosthetic Dentistry*.
- JACK B. FLANAGAN, JR., D.M.D., *Research Fellow in Orthodontics*.
- RONALD J. GIBBONS, PH.D., *Research Associate in Bacteriology at the Forsyth Dental Infirmary*.
- DONALD B. GIDDON, D.M.D., *Research Fellow in Dental Medicine*.
- HAROLD S. GOLD, D.M.D., *Instructor in Prosthetic Dentistry*.
- PAUL GOLDBABER, D.D.S., *Associate Professor of Periodontology and Tutor in Dental Science*.
- ROY O. GREEP, PH.D., *Professor of Anatomy in the School of Dental Medicine and Dean*.
- WALTER C. GURALNICK, D.M.D., *Assistant Clinical Professor of Oral Surgery*.
- CHESTER S. HANDELMAN, D.M.D., *Research Fellow in Orthodontics*.
- E. ROBERT HAYNES, D.M.D., *Instructor in Operative Dentistry*.
- PHILIP F. HIRSCH, PH.D., *Associate in Pharmacology in the School of Dental Medicine*.
- TERRENCE D. HOOVER, D.M.D., *Instructor in Pediatric Dentistry*.
- MINORU HORIUCHI, D.M.D., *Assistant in Dental Medicine*.
- EDWARD E. HUNT, JR., PH.D., *Assistant Professor of Anthropology at the Forsyth Dental Infirmary*.
- HIROSHI IBAYASHI, M.D., D.M.S., *Research Fellow in Pharmacology in the School of Dental Medicine* (from November 1, 1961).
- JAMES T. IRVING, PH.D., M.D., *Professor of Physiology at the Forsyth Dental Infirmary*.
- JOSEPH P. JAZOWSKI, D.M.D., *Associate Clinical Professor of Prosthetic Dentistry*.
- BIRGIT I. JOHANSSON, D.D.S., *Research Fellow in Dental Medicine*.
- I. CHESTER JONES, PH.D., *Milton Research Associate in Anatomy in the School of Dental Medicine* (through September 30, 1961).
- ROBERT KILPATRICK, M.R.C.P., M.D., *Research Associate in Pharmacology in the School of Dental Medicine*.

SCHOOL OF DENTAL MEDICINE

YOUNG H. KIM, D.D.S., *Instructor in Orthodontics.*

LEON B. LEACH, D.M.D., *Instructor in Dental Medicine* (resigned November 30, 1961).

LAURE LEBRET, D.F.M.P., *Instructor in Orthodontics.*

MERVYN V. LEEDING, PH.D., *Research Fellow in Pharmacology in the School of Dental Medicine.*

ROBERT C. LINCOLN, D.M.D., *Instructor in Oral Surgery.*

MAX LISTGARTEN, D.D.S., *Research Fellow in Dental Medicine.*

WALTER J. LOESCHE, D.M.D., *Research Fellow in Dental Medicine.*

PAUL K. LOSCH, D.D.S., *Associate Professor of Pediatric Dentistry at the Children's Hospital and Chief of the Dental Service at the Children's Hospital Medical Center.*

JOHN B. MACDONALD, D.D.S., PH.D., *Professor of Microbiology in the School of Dental Medicine and Director, Forsyth Dental Infirmary.*

ARTHUR M. MALONEY, D.M.D., *Associate Professor of Prosthetic Dentistry, Emeritus* (as of September 1, 1961).

ROBERT J. MATUSOW, D.M.D., *Instructor in Operative Dentistry.*

SALVATORE A. MIGLIORE, D.D.S., *Research Fellow in Orthodontics.*

RICHARD L. MINER, D.D.S., *Instructor in Oral Surgery.*

COENRAAD F. A. MOORREES, D.D.S., *Associate Professor of Orthodontics at the Forsyth Dental Infirmary.*

PAUL L. MUNSON, PH.D., *Associate Professor of Pharmacology in the School of Dental Medicine.*

RUDOLF NAUJOKS, D.M.D., *Visiting Lecturer on Dental Medicine* (from March 1, 1962).

J. HOWARD OAKS, D.M.D., *Instructor in Operative Dentistry, Assistant Dean of the School of Dental Medicine for Student Affairs and Tutor in Medical Science.*

GERALD L. O'NEILL, D.M.D., *Assistant Clinical Professor of Operative Dentistry.*

TAI-CHAN PENG, M.D., *Research Fellow in Pharmacology in the School of Dental Medicine.*

INGRID PERSSON, D.D.S., *Research Fellow in Dental Medicine.*

ERIK G. RASMUSSEN, D.D.S., *Research Fellow in Bacteriology.*

EARLE H. ROSENBERG, D.M.D., *Instructor in Dental Medicine.*

HARVARD UNIVERSITY

- EDWARD ROSENTHAL, D.M.D., *Research Fellow in Orthodontics.*
- JULIAN M. ROTHBLATT, D.M.D., *Instructor in Orthodontics.*
- EMILE C. A. SAMAHA, D.M.D., *Instructor in Prosthetic Dentistry.*
- JAMES H. SHAW, PH.D., *Associate Professor of Biological Chemistry in the School of Dental Medicine.*
- SIGMUND SOCRANSKY, D.D.S., *Associate in Dental Medicine at the Forsyth Dental Infirmary.*
- MORTON SPECK, D.M.D., *Assistant in Orthodontics.*
- JAMES SPRINGER, D.M.D., *Instructor in Dental Medicine.*
- BURT D. STERN, D.M.D., *Milton Research Associate in Dental Medicine (July 1–August 30, 1961); Research Associate in Dental Medicine (from September 1, 1961).*
- WARD R. STOOPS, D.M.D., *Instructor in Operative Dentistry.*
- MOSES S. STROCK, D.M.D., *Associate Clinical Professor of Dental Medicine.*
- LENNARD T. SWANSON, D.M.D., *Clinical Associate in Orthodontics.*
- EDWARD A. SWEENEY, D.M.D., *Research Fellow in Pediatric Dentistry.*
- NORTON S. TAICHMAN, D.D.S., *Research Fellow in Dental Medicine.*
- ARMEN H. TASHJIAN, JR., M.D., *Research Fellow in Pharmacology in the School of Dental Medicine.*
- JOHN B. TAYLOR, D.D.S., *Assistant in Prosthetic Dentistry.*
- KAMAL D. THANIK, B.D.S., *Instructor in Dental Medicine.*
- CLAUDE W. THOMPSON, JR., D.M.D., *Instructor in Operative Dentistry.*
- G. EARL THOMPSON, D.M.D., *Associate Clinical Professor of Operative Dentistry and Director of the Clinic.*
- NORMAN TRIEGER, D.M.D., *Clinical Associate in Dental Medicine.*
- JOHANNES VAN HOUTE, B.D.S., *Research Fellow in Dental Medicine.*
- MYRON J. VAN LEEUWEN, D.D.S., *Assistant Clinical Professor of Operative Dentistry.*
- JAMES J. VOGEL, PH.D., *Research Fellow in Biological Chemistry.*
- SHELDON G. WALD, D.D.S., *Research Fellow in Orthodontics.*
- DAVID WEISBERGER, D.M.D., M.D., *Professor of Dental Medicine and Chief of the Dental Department at the Massachusetts General Hospital.*

SCHOOL OF DENTAL MEDICINE

WILLIAM D. WELLOCK, D.M.D., M.P.H., *Lecturer on Public Health Dentistry.*

HERBERT WELLS, D.M.D., *Associate in Pharmacology in the School of Dental Medicine and Tutor in Medical Science.*

PHILIP H. WHITE, D.M.D., *Lecturer on Oral Surgery.*

AUSTIN T. WILLIAMS, D.M.D., *Lecturer on Oral Surgery.*

ROY E. WUTHIER, PH.D., *Research Fellow in Biological Chemistry at the Forsyth Dental Infirmary and Tutor in Medical Science.*

GEORGE H. WYSHAK, PH.D., D.M.D., *Instructor in Dental Medicine.*

PETER KAI-JEN YEN, D.M.D., *Clinical Associate in Dental Medicine.*

S. JEROME ZACKIN, D.M.D., *Research Associate in Dental Medicine.*

ANNOUNCEMENT OF COURSES

During the first two academic years, dental and medical students pursue courses of study that are alike in philosophy and objectives but that differ in content. Special exercises have been devised for dental and medical students to illustrate for each group how the basic sciences serve their respective professions. Tutorial study of dental students is under the direction of the dental staff.

Oral Histology and Pathology — 3rd and 4th years. Assistant Professor GOLDBABER; Drs. ALBRIGHT, STERN and ZACKIN.

The teaching in the third year begins with a microscopic laboratory course and a series of discussions devoted to the histology and pathology of the tissues of the oral cavity and is augmented in the third and fourth years by the clinical teaching staff through many activities in the clinic and in the hospitals.

Dental Anatomy — 1st semester 3rd year. Assistant Professor VAN LEEUWEN and Dr. OAKS.

Instruction in dental anatomy and tooth morphology. Special emphasis is placed on individual tooth form and the relationship of the tooth to adjacent teeth, opposing teeth and supporting tissue. Technique practice in reproduction of tooth form is stressed using natural extracted teeth.

Radiology — 3rd and 4th years. Dr. DEWILDE.

Principles of applied roentgenology and the interpretation of radio-

HARVARD UNIVERSITY

graphs, with consideration of the electro-physical basis of roentgenology, are covered in the third year. Practice in radiological technique and interpretation is given in both years.

Operative Dentistry — 3rd and 4th years. Associate Professor G. E. THOMPSON and Assistant Professor VAN LEEUWEN; Drs. BRDEVOLD, ETHERINGTON, O'NEILL, ADAMS, BAILEY, C. COHEN, HAYNES, MATUSOW, OAKS, STOOPS and C. W. THOMPSON.

Early student-patient contact and immediate clinical application of learned technical procedures are emphasized. In the third year instruction is given in oral hygiene, accepted methods of dental prophylaxis and technique of cavity preparation in conjunction with a study of the various types of restorative materials.

In the fourth year gold foil technique is given, new operative procedures introduced, and clinical practice in all phases of operative procedure is continued.

Prosthetic Dentistry — 3rd and 4th years. Associate Professor JAZOWSKI and Assistant Professors EHRLICH and FARRELL; Drs. FISHMAN, GOLD, SAMAHA and TAYLOR.

Prosthetic dentistry which includes complete, fixed and removable prosthesis is taught in the third and fourth years. Through lectures, conferences and demonstrations the student receives clinical and laboratory instruction in the anatomy and physiology of the mouth as it applies to prosthetic dentistry, and in the materials and techniques of prosthetic restoration directed toward oral health, function and aesthetics. Every effort is made to provide early clinic contacts and to teach technique on clinic cases. The high teacher-student ratio, small classes and special physical facilities favor this type of instruction.

Dental Medicine — 3rd and 4th years. Professor WEISBERGER; Drs. TRIEGER, BOOTH, CHRISTMAN, ROSENBERG and WYSHAK.

A course devoted to the diagnosis and treatment of oral diseases, i.e., diseases of the periodontium, dental pulp, oral mucosa and other oral structures together with their correlation to systemic conditions. Lectures, seminars, clinical practice and observation both in the Dental Infirmary and at the Massachusetts General Hospital.

Infirmary procedures, identification of oral structures, methods of oral examination, history taking, and common methods of diagnosis

SCHOOL OF DENTAL MEDICINE

for dental and oral disease are given in both years, supplemented by practice in the general clinic.

Periodontics — 3rd and 4th years. Professor WEISBERGER; Drs. GOLDHABER, EPSTEIN, WYSHAK, STERN and ZACKIN.

The student is taught to recognize and diagnose periodontal disease and to comprehend its pathogenesis. He is expected to understand the role of local etiological factors as well as the part played by systemic disease in modifying tissue response to local irritations.

With regard to therapy, emphasis is placed on the elimination of local factors and the institution of preventive procedures. In addition, he is taught the principles of occlusal equilibration and splinting of loose teeth. All students are required to perform periodontal surgery.

Pharmacology in Clinical Dentistry — 2nd semester 4th year. Dr. TRIEGER; Drs. MUNSON, HIRSH and WELLS.

Practical recommendations and theoretical bases for the use of drugs by the dental practitioner. The more important classes of drugs used in medicine will also be considered, particularly where their use necessitates modification of the usual dental treatment.

Oral Surgery — 3rd and 4th years. Professor WEISBERGER; Drs. GURALNICK, DEWILDE, BOOTH, CHRISTMAN, LINCOLN and MINER.

The students are taught through lectures and seminars the principles of surgery as applied to exodontia, minor oral surgery, maxillo-facial surgery and fractures and anaesthesia.

Individual clinical instruction in exodontia, minor oral surgery and anaesthesia is given at the Dental Infirmary.

In the fourth year students are assigned to the Massachusetts General Hospital as clinical clerks on the Dental Service. At the hospital more extensive surgery of the oral cavity including traumatic injuries to the face and jaws is observed. The student takes active part in the study and treatment of such cases.

Pediatric Dentistry — 3rd and 4th years. Associate Professor LOSCH and Dr. HOOVER.

Lectures and demonstrations introduce the subject in the third year with emphasis on the physical and psychological development of the child. In the general clinic, the student, under supervision, practices routine dental care for children and learns principles of patient and parent instruction in oral hygiene and personal caries control measures.

HARVARD UNIVERSITY

In the fourth year, the student continues practice in pediatric dentistry in the general clinic. In addition, he visits The Children's Hospital Medical Center where, under the guidance of the dental staff, he views those conditions of both in- and out-patients best seen in a hospital atmosphere. Special consideration is given to those patients whose systemic disease includes oral manifestations. Individually, he observes the staff at dental operations performed in the main operating rooms of the hospital. Ward rounds by the dental staff are given regularly. Students attend the clinico-pathological conferences and are assigned to other teaching exercises given by the general staff of the hospital.

Orthodontics — 3rd and 4th years. Assistant Professor M. COHEN; Drs. MOORREES, SWANSON, ROTHBLATT and BINDER.

Clinical instruction consists in the observation of developing dentures, the use of preventive measures, and the use of selected orthodontic treatment procedures by each student. Emphasis is placed on the development of sound clinical judgment as a basis for the selection and care of orthodontic patients within the scope of general practice. Opportunity is provided for experience beyond the required minimum for those students with special interest and ability. Discussions and demonstrations supplement the work of the clinic. Each student is required to present a paper in seminar during his junior year and in the last semester of the senior year each student is responsible for the presentation of one or more cases he has treated during his clinical years. In addition to lectures on growth and development, mechanotherapy, and tissue response to tooth movement, lectures and demonstrations are given in cephalometrics, cleft palate, and surgical orthodontics. Observation of a great variety of orthodontic treatments is provided at The Children's Hospital Medical Center.

Endodontics — 3rd and 4th years. Drs. O'NEILL and MATUSOW.

In the third year the clinical and pathological presentation of pulpal-periapical disease is integrated with the teaching of oral pathology. In this manner the student achieves an early appreciation of the pathological course of events and the clinical symptoms which necessitate endodontic therapy. Clinical demonstrations and laboratory technique exercises are given on bacteriological culturing, biomechanical debridement and canal obturation techniques preceding the assignment of patients for clinical experience.

SCHOOL OF DENTAL MEDICINE

In the fourth year diagnostic conferences and clinical experience involving conservative root canal therapy and the indications and application of periapical surgery round out the student's introduction to the field.

Introduction to Dental Research — 1st semester 3rd year. Associate Professor MUNSON and Associates.

A series of ten or more one-hour lectures on specific research projects available for student participation in the research laboratories of the School of Dental Medicine.

Research Project — 3rd and 4th years. Associate Professor MUNSON and Associates.

In order to gain a more realistic appreciation of the nature of scientific research, all students of the Harvard School of Dental Medicine, as a requirement for graduation, participate in a laboratory or clinical investigation of their own choosing. By the end of the first semester of the third year, after completion of the course, *Introduction to Dental Research*, the student has chosen a research supervisor from the faculty and the subject to be investigated. He presents a plan for his research project in the form of a seminar at the beginning of the second semester. During the rest of the third year, and in some cases during the summer months, he attempts to master the techniques necessary for his work. During the fourth year, with the advice and aid of the faculty research supervisor, the project is carried forward, and at the end of the year, the student presents a seminar summarizing his results. Both the third- and fourth-year seminars are also required in written form for permanent reference in the Library.

Nutrition — 1st and 2nd semesters 3rd year. Associate Professor SHAW.

Discussion of relations of nutrition to the development, maturation and maintenance of the oral tissues. Discussion of nutritional requirements, relative values of various foods and the preparation of diet histories. Clinic practice in the evaluation of diet histories and in the development of suitable recommendations for the patient.

Fundamentals of Occlusion — 1st and 2nd semesters 4th year. Assistant Professor M. COHEN, Dr. EPSTEIN and Associates.

This course represents a combined effort of many disciplines to provide basic information on the stomatognathic system as a back-

HARVARD UNIVERSITY

ground for an understanding of occlusion. Lectures include such areas as embryology and growth and development of the face and dentition; anatomy and physiology of the temporomandibular articulation and facial musculature; relationship of the jaws and teeth in both functional and non-functional movements; comparison of natural and artificial dentitions.

Public Health Dentistry — 3rd year. Assistant Professor DUNNING; Dr. WELLOCK and Associates from the Medical School and School of Public Health.

Public health principles and practices with emphasis on the participation of the dentist. Elements of biostatistics and epidemiology. Lectures, seminars and field work.

Practice Management and Dental Jurisprudence — 2nd semester 4th year. Dr. DUNNING; Dr. FORD from the Medical School.

Lectures and seminars on practice management, ethics and jurisprudence.

History of Dentistry — 3rd year. Dr. OAKS.

A course designed to provide a brief background in the ancient and recent developments in dentistry. Several lectures will be devoted to the Harvard Dental School, the School of Dental Medicine, and its affiliated organizations.

SCHOOL OF DENTAL MEDICINE

The tabulated hours below indicate the approximate allotment of time for the third and fourth academic years in the School of Dental Medicine.

As the entering classes are limited, it is possible to reduce the time usually involved in courses of dental techniques. Individual instruction, demonstrations, seminars and conferences replace the traditional lecture system to a large degree.

THIRD YEAR			FOURTH YEAR		
	Lectures, Lab. or Demon- stration	Clinic		Lectures, Lab. or Demon- stration	Clinic
Oral histology and pathology	32	—	Radiology	8	20
Dental anatomy	45	—	Operative dentistry . .	36	118
Radiology	12	10	Prosthetic dentistry		
Operative dentistry . .	104	160	Complete denture		
Oral hygiene and prophylaxis	18	20	prosthesis	10	103
Prosthetic dentistry			Removable denture		
Complete denture			prosthesis	10	90
prosthesis	90	144	Fixed partial pros-thesis	97	196
Removable partial			Dental medicine	13	—
prosthesis	42	72	Clinical clerkship,		
Dental medicine	16	—	Massachusetts		
Dental medicine,			General Hospital	—	60
Massachusetts			Oral diagnosis	13	60
General Hospital	—	4	Periodontics	8	72
Oral diagnosis	16	52	Dental materia		
Periodontics	26	52	medica	16	—
Oral surgery	—	3	Oral surgery and		
Oral surgery,			anaesthesia	32	40
anaesthesia	8	—	Pediatric dentistry at		
Pediatric dentistry . .	12	20	the Children's Hos-		
Orthodontics	68	120	pital	—	35
Endodontics	10	20	Orthodontics	24	126
Introduction to dental			Endodontics	10	30
research	10	—	Student research and		
Student research and			seminar	24	—
seminar	24	—	Practice management		
Nutrition	8	—	and dental juris-		
Public health dentistry	24	9	prudence	6	—
History of dentistry .	6	—			
	<hr/>	<hr/>		<hr/>	<hr/>
	571	686		307	950

HARVARD UNIVERSITY

ON JUNE 15, 1961, FOURTEEN DEGREES WERE CONFERRED
AS FOLLOWS:

D.M.D.

Louis Saunder Bortnick, A.B. (*Williams Coll.*) 1956.
Anthony Alfred Gianelly, A.B. 1957.
Donald Frederick Gove, S.B. (*Univ. of New Hampshire*) 1957.
Joel Mayer Kennedy, A.B. (*Dartmouth Coll.*) 1955.
Walter Joseph Loesche, A.B. (*Yale Univ.*) 1957.
Donald Francis Mori, A.B. (*Univ. of Vermont*) 1957.
Robert Martin Sholler, A.B. 1957.
James Homer Sowles, A.B. (*Williams Coll.*) 1957.

D.M.D. cum laude

Laurence Irwin Barsh, A.B. (*Boston Univ.*) 1957.
Donald Frederick Booth, A.B. (*Middlebury Coll.*) 1961.
Fredric Goodman, A.B. 1957.
Edward Arthur Sweeney.

D.M.D. magna cum laude for Thesis in a Special Field

Chester Sidney Handelman, A.B. (*Washington and Jefferson Coll.*)
1957.

D.M.D. magna cum laude

Jack Buford Flanagan, Jr., B.C.E. (*Georgia Inst. of Technology*) 1952,
S.M. (*Massachusetts Inst. of Technology*) 1953.

Fourth Class

Agranat, Barry Joseph, A.B. (<i>Brandeis Univ.</i>) 1958.	Brighton
Berman, Kenneth Sidney, A.B. 1958.	Brookline
Carbone, Duane Francis, A.B. 1958.	Beverly
Courant, Paul Richard, S.B. (<i>Tufts Univ.</i>) 1958.	Gloucester
Donahue, Robert Mark, S.B. (<i>Tufts Univ.</i>) 1957.	Arlington
Harring, Cedric Frasier, Jr., A.B. (<i>Colby Coll.</i>) 1957.	Newton Centre
Kahn, Melvin, A.B. 1958.	Dorchester

SCHOOL OF DENTAL MEDICINE

- Leake, Donald Lewis, A.B. (*Univ. of Southern California*) 1953. Long Beach, California
- Mann, Charles Melvin, A.B. (*Boston Univ.*) 1953. Brighton
- McNulty, Edward Conroy, S.B. (*Coll. of the Holy Cross*) 1957. White Plains, N. Y.
- Miller, Stephen Avrom, A.B. 1958. Newton
- Norton, Louis Arthur, A.B. (*Bowdoin Coll.*) 1958. Manchester, N. H.
- *Petersen, Eugen Albert, S.B. (*St. Lawrence Univ.*) 1954. [Cornell Univ. Medical College]. Manhasset, N. Y.
- Sherman, Donald Stephen, A.B. (*Brandeis Univ.*) 1958. Saugus
- Susi, Frank Robert, S.B. (*Boston Coll.*) 1958. East Boston

Third Class

- Bailey, Nelson Edgar, A.B. (*Susquehanna Univ.*) 1957. Selinsgrove, Pa.
- *Dogon, Israel Leon (*Univ. of Witwatersrand*), L.D.S. (*Univ. of London*) 1957. [Univ. of London Dental School]. Allston
- Evans, Robert Edgar, A.B. (*Hamilton Coll.*) 1959. Leonardsville, N. Y.
- Gamm, Stephen Harvey, A.B. (*Brandeis Univ.*) 1959. Milton
- Goldin, Joel, A.B. (*Amherst Coll.*) 1959. Yonkers, N. Y.
- Kaufman, Elias Jacob, A.B. (*Cornell Univ.*) 1959. Brooklyn, N. Y.
- Kushnir, Harry, A.B. 1959. Newton Centre
- *Lear, Clement Samuel Cope (*Canterbury Coll.*), B.D.S. (*Univ. of Otago*) 1953. [Univ. of Otago Dental School]. Boston
- McLeod, Hugh Stanford, A.B. (*Reed Coll.*) 1957. Kansas City, Mo.
- O'Connor, John Edmond, A.B. (*Boston Coll.*) 1959. Jamaica Plain
- Valente, Louis John (*Northeastern Univ.*) Milford

Second Class

- Carlin, Richard Thomas, A.B. (*Clark Univ.*) 1960. Tarrytown, N. Y.
- Davidson, William Martin, A.B. (*Dartmouth Coll.*) 1960. Winthrop
- Falla, William Stinson, S.B. (*Boston Coll.*) 1960. Harwichport
- Palmer, Arthur Harvey, A.B. (*Boston Univ.*) 1957. Winthrop
- Poczatek, Zygmunt Walente, S.B. (*Boston Coll.*) 1960. New Bedford

First Class

- Beck, Robert Lee, A.B. (*Univ. of Virginia*) 1958. San Diego, Calif.
- Bleil, Bruce Thompson, A.B. (*Rice Univ.*) 1961. Houston, Texas

* Transferred to third year class.

HARVARD UNIVERSITY

Garant, Philias Roy, S.B. (<i>Tufts Univ.</i>) 1958.	Fall River
Gordon, George David, A.B. (<i>Bowdoin Coll.</i>) 1961.	Belmont
‡Harden, Lewis Brown (<i>Iowa State Teachers Coll.</i>)	Cedar Falls, Iowa
Manasek, Francis John, A.B. (<i>New York Univ.</i>) 1961.	Bronx, N. Y.
Mull, John Dennis, A.B. 1960.	Braintree
Pekruhn, Richard Barnhill, A.B. (<i>Oberlin Coll.</i>) 1961.	Steubenville, Ohio
Solod, Eugene Alan, S.B. (<i>Tufts Univ.</i>) 1961.	Worcester
Suskin, William Howard, A.B. (<i>New York Univ.</i>) 1947.	Hewlett, N. Y.
Williston, William Curtis, S.B. (<i>Coll. of the Holy Cross</i>) 1957.	Springfield

‡ Admitted on basis of three years' college work.

DENTAL SCHOOL SUMMARY 1961-62

Fourth Class	15
Third Class	9
Second Class	5
First Class	11
	—
Total	40

COLLEGES REPRESENTED

Amherst College	1	Reed College	1
Boston College	4	Rice University	1
Boston University	2	St. Lawrence University	1
Bowdoin College	2	Southern California, University	
Brandeis University	3	of	1
Canterbury College	1	Susquehanna University	1
Clark University	1	Tufts University	4
Colby College	1	Virginia, University of	1
Cornell University	1	Witwatersrand, University of	1
Dartmouth College	1		
Hamilton College	1	Total number of students	42
Harvard University	6		
Holy Cross, College of the	2	Entered advanced standing	3
Iowa State Teachers College	1	Number of colleges represented	25
New York University	2	Number of college graduates	38
Northeastern University	1	Number of non-graduates	4
Oberlin College	1		

DENTAL SCHOOLS REPRESENTED BY STUDENTS WHO ENTERED HARVARD SCHOOL OF DENTAL MEDICINE WITH ADVANCED STANDING

London Hospital Dental School	1
University of Otago Dental School	$\frac{1}{2}$
Total	2

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FULLER ALBRIGHT, M.D.	Professor of Medicine
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CHARLES G. MIXTER, M.D.	Clinical Professor of Surgery

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HARRY C. SOLOMON, M.D.

FRITZ BRADLEY TALBOT, M.D.

KURT H. THOMA, D.M.D.

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FREDERICK H. VERHOEFF, M.D.

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PAUL I. YAKOVLEV, M.D.

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Clinical Professor of Gynecology

Walter Augustus Lecompte Professor of Otology and Professor of Laryngology

Clinical Professor of Tropical Medicine

Thomas Morgan Rotch Professor of Pediatrics

Professor of Psychiatry

Clinical Professor of Pediatrics

Professor of Oral Surgery and Charles A. Brackett Professor of Oral Pathology

George Fabyan Professor of Comparative Pathology and Professor of Tropical Medicine

Professor of Ophthalmic Research

Walter Augustus Lecompte Professor of Otology

Edward Wigglesworth Professor of Dermatology

Professor of Surgery at the Massachusetts General Hospital

Clinical Professor of Neuropathology

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Aaronson, L. D.	149	Alexander, S.	137
Abadi, A. A.	182	Alexandre, G. P. J.	203
Abbiss, T. P.	203	Algeri, E. J.	125
Abbott, J. A.	156	Algird, J. R.	201
Abbruzzese, A.	137	Alkalay, I. S.	137
Abelmann, W. H.	127	Allen, D. W.	131
Abramovicz, A.	161	Allen, D. M.	179
Abramowicz, M.	184	Allen, F. H., Jr.	177
Abrams, A. L.	199	Allen, H. F.	171
Abramson, D.	187	Allensworth, D. C., 3d	142
Achenbach, H.	201	Allers, O. E.	179
Ackerly, W. C.	158	Alonso, C.	137
Ackerman, I. P.	133	Alper, M. H.	123
Ackerman, J. L.	253	Alpers, J. B.	103
Adams, C. F.	11	Alpert, J. J.	184
Adams, E. E.	253	Altman, B.	203
Adams, J., Jr.	148	Altman, G. E.	129
Adams, J. E.	117	Altman, H. G.	158
Adams, J. G., Jr.	199	Altschule, M. D.	127
Adams, R. D.	150, 184	Alver, E. C.	201
Adams, R. A.	115	Amador, E.	137
Adelardi, C. F.	137	Ambrose, C. T.	110
Adelson, W. J.	181	Amdur, B. H.	253
Adelstein, S. J.	97, 143, 175	Ames, A., 3d	104, 207
Adler, G.	162	Amezcuca, F. J.	182
Adler, L. N.	137	Amezcuca, J. T.	182
Adler, M. H.	158	Amos, H.	109
Aeschliman, B. L.	158	Andell, M. A.	253
Afield, W. E.	163	Anderson, J.	203
Agrifoglio, G.	203	Anderson, J. B., Jr.	137
Aisenberg, A. C.	129	Anderson, J. V.	163
Akins, K. B.	158	Andrews, J. S., Jr.	174
Albert, H. S.	152	Andrus, S. B.	118
Albert, J.	149	Angelini, H. D.	214
Albright, F.	268	Angevine, J. B., Jr.	97
Albright, J. T.	253	Anliker, J. E.	199
Al-Chockhachy, M. K.	203	Annino, D. J.	181
Aldridge, N. H.	175	Antoniades, H. N.	188
Alexander, B.	126	Antonowicz, I.	179
Alexander, G. L., Jr.	158	Apffel, C. A.	199

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Appels, A. T.	137	Barker, R. H.	188
Appleton, W. S.	163	Barlow, J. F.	117
Arky, R. A.	137	Barlow, J. J.	190, 191
Armstrong, D. T.	253	Barlow, J. S.	159
Arnason, B. G. W.	163	Barnes, B. A.	198
Aronow, S.	131	Barnes, C. B.	12
Aronson, J. A.	159	Barnum, W. J., Jr.	163
Arregui, J.	203	Barr, J. S.	210
Asano, A.	110	Barrett, B. H.	162
Asbury, A. K.	163	Barry, H., Jr.	156
Asehoff, M.	156	Barsamian, E. M.	194, 199
Askonas, B. A.	109	Bartholomay, A. F.	127
Athanassiades, S. C.	203	Bartlett, M. K.	196
Atkins, L.	114, 115, 125	Barton, T. C.	191
Atwood, R. P.	110	Basauri, L.	203
Aub, J. C.	268	Batchelor, W. H.	133
Aufranc, O. E.	210	Bates, F. D.	211
Austen, F. K.	133, 136	Battit, G. E.	201
Austin, J. H.	189	Baue, A. E.	206
Austin, R. C.	201	Bauer, W.	126
Avery, N. C.	163	Baxter, J. P., 3d	11
Ayer, J. B.	268	Bayles, T. B.	129
Baden, H. P.	149	Beaser, S. B.	129
Badger, T. L.	127	Beck, K. S.	164
Baggett, N.	105, 143	Beck, W. S.	127
Bailey, C. C.	129	Beecher, H. K.	14, 196
Bailey, D. W.	9, 11	Beesley, E. N.	12
Bailey, H. K.	253	Beetham, W. P.	171
Bailit, I. W.	181	Behringer, G. E.	201
Baker, G. P.	182	Behrman, E. J.	104
Baker, G. P., Jr.	137	Bell, E. D., Jr.	133
Baker, M. P.	129	Bell, N. W.	154
Baker, W. H.	129	Belsasso-Prister, G.	164
Balazs, E. A.	172	Benaron, T.	156, 184
Balboni, V. G.	133	Benda, C. E.	156
Baldwin, D. C., Jr.	179	Bendixen, H. H.	199
Ball, E. G.	13, 103	Benedict, E. B.	197
Ballantine, H. T., Jr.	198	Benedict, P. H.	133
Balogh, J. G.	159	Bennett, J. C.	137
Balogh, K.	117	Bennett, J. M.	142
Banker, B. Q.	152	Berenberg, W.	178
Banks, B. M.	129	Berezin, M. A.	156
Banks, H. H.	211	Berezowski, H. V.	203
Bannister, R. G.	162	Berg, K. R.	162
Barakat, R. M.	137	Berg, R. B.	178
Barger, A. C.	100	Berg, S.	206
Baringer, J. R.	163	Bergel, E. W.	162

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Bergquist, P. L.	137	Bonk, J. P.	175
Bering, E. A., Jr.	197	Bonner, F. J.	156
Berkowitz, A.	12	Booth, N. A.	253
Berman, J. M.	164	Borgese, T. A.	131
Bernhard, W. F.	199	Boruchoff, S. A.	172
Bernstein, D. S.	133	Bosler, R. B.	122
Bernstein, N. R.	156	Botsford, T. W.	197
Berry, G. P. 13, 14, 87,	108	Bowler, J. H.	212
Bertles, J. F.	133	Boyd, P. R.	162
Beskind, H.	164	Boyer, F. 10, 12	
Bethune, J. L.	104	Boyers, C. L., Jr.	253
Betts, A.	116	Bozer, A. Y.	203
Beuscher, R. B.	159	Braceland, F. J.	152
Beuscher, W. F.	159	Braconier, H. E.	172
Bhaktaviziam, C. A.	117	Braun, S. J.	164
Bibring, G. L.	150	Braunwald, J.	137
Bigelow, F. S.	127	Braverman, L. E.	137
Bigler, P. C.	191	Brazelton, T. B.	179
Binder, A. E.	253	Brena, G. P.	137
Binette, J. P.	137	Brendze, R. B.	211
Binstock, W. A.	159	Brenner, J. H.	162
Birbeck, M.	148	Brett, E. M.	184
Birchard, W. "H".	136	Brickman, G. S.	211
Bird, K. T.	133	Briefer, C., Jr.	137
Birk, C. L.	164	Brines, J. K.	179
Birtch, A. G.	203	Brobeck, J. R.	12
Black, H.	199	Brochin, M.	191
Black, W. P.	190	Brockhurst, R. J.	172
Blaine, G. B., Jr.	159	Broderick, T. F., Jr.	211
Blakeley, G. W., Jr.	12	Brodie, A. F.	109
Blanch, E. T.	181	Brooks, H. E., Jr.	189
Bland, E. F.	126	Brooks, J. R.	198
Blane, H. T.	156	Brooks, R. A.	116
Blank, I. H.	148	Brown, A. C.	159
Bleicher, S. J.	137	Brown, D. A. J.	191
Blinks, J. R.	122	Brown, H. P.	199
Blitzer, J. R.	156	Brown, M. E.	203
Bloomfield, R. A.	129	Brown, M. G.	133
Blout, E. R. 100,	118	Brown, R. W.	189
Blumgart, H. L.	126	Brown, T.	210
Boeder, P.	171	Brownell, G. A.	11
Bogoch, E. S.	164	Brownell, G. L.	131
Bojar, S.	152	Brownlee, R. E.	133
Bojarski, T. B.	131	Brownsberger, C. N.	164
Boling, L. A.	159	Brudevold, F. 107,	253
Bollinger, D. M.	159	Brun, A.	154
Bolton, C. H. 105,	143	Brussel, B. B.	156

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Bucher, N. L. R.	129	Caskey, W. H.	133
Buie, D. H., Jr.	164	Caspar, D. L. D.	100
Bullard, D. M., Jr.	162	Cass, J. W., Jr.	133
Bullock, M.	156	Castellanos, H. A.	199
Bunche, R. J.	11	Casten, V. G.	171
Bur, G. E.	117	Castle, W. B.	126
Burack, W. R.	122, 143	Castleman, B.	113
Burbank, C. B.	201	Catinella, P. J.	148
Burden, C. E.	184	Catlin, R., Jr.	164
Burgess, A. M., Jr.	193	Caulfield, J. B.	114
Burgin, L. B.	178	Cavanaugh, J. J. A.	181
Burke, J. F.	198	Cavanaugh, T. J. A.	172
Burke, M. D.	117	Cereijido, M.	101
Burnett, J. P., Jr.	137	Chafetz, M. E.	152
Burnett, J. W.	149	Chalfen, M. H.	136
Burns, R. O.	137	Chalmers, T. C., Jr.	127, 131
Burnstine, M.	125	Chalpin, G.	159
Burr, F. H.	9	Chamberlain, J. W.	199
Burwell, C. S.	268	Chandler, P. A.	171
Busfield, B. L., Jr.	159	Chapman, E. M.	127
Bush, W. G.	142	Chapman, R. B.	172
Bushueff, B. P.	175	Charles, D.	117
Butler, A. M.	268	Chase, L. S.	154
Butt, H. R.	131	Chasen, M. C.	159
Buxton, B. H., Jr.	188	Chasin, R. M.	164
Buytendorp, A. A.	203	Chatterjee, K. N.	204
Byers, R. K.	167, 177	*Chernin, E.	120
Cable, R.	176	Cherry, J. D.	138
Cabot, P. C.	9	Chisholm, J. F., Jr.	172
Cadigan, J. B., Jr.	133	Choi, O. S.	138
Cahill, G. F., Jr.	129	Choras, P. T.	164
Cain, A. J.	159	Christ, J. R.	159
Calkins, E.	127	Christman, G.	253
Callahan, E. J., 3d	133	Churchill, E. D.	196
Calne, R. Y.	204	Claff, C. L.	199
Camerini, R.	132	Claman, L.	159
Canellos, G. P.	137	Clark, D. A.	193
Cankardas-Wysocki, A.	154	Clark, G. G.	97
Cannon, B.	198	Clark, J. G., Jr.	159
Cardinali, G.	115	Clark, R. G.	204
Carey, R. J.	136	Clark, V. A.	193
Carpenter, R. L.	172	Clifford, S. H.	178
Carroll, W. J. E.	214	Cline, H. S.	159
Carter, E. L.	201	Closse, A.	105, 143
Carter, F.	159	Clough, J. M.	172
Carver, D. H.	182	Cloutier, G.	164

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OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Clower, V. L.	159	Coser, R. L.	154
Cobb, J. K.	175	Cotran, R. S.	115
Cobb, S.	268	Cotsen, R. S.	136
Cochran, W. D.	179	Cowan, J. S.	162
† Cochran, W. G.	194	Cowles, J.	11
Cogan, D. G. 14, 118, 171,	173	Cox, J. F. W.	164
Coggeshall, R. E.	97	Cox, J. S. T.	204
Cohen, C. G.	253	Crabbe, P. A.	138
Cohen, C. 104,	118	Craig, J. M.	113
Cohen, J.	211	Craighead, J. E.	117
Cohen, M. E.	156	Crandell, A. B.	136
Cohen, M. L.	204	Crane, C.	197
Cohen, M. I.	253	Crawford, J. D.	178
Cohen, P.	133	Crick, F. H. C.	100
Cohen, R. E.	156	Crigler, J. F., Jr.	178
Cohen, R. B.	114	Critz, G. T.	179
Cohen, S. I.	199	Crocker, A. C.	179
Cole, E. M.	152	Crocker, A. T.	133
Cole, M.	164	Crocker, D.	201
Coleman, J. E.	138	Crocker, D. W.	116
Coleman, R. M.	164	Crocker, J. S.	201
Collaco, F. T. deM.	138	Crocker, S. C.	133
Collins, D. L.	206	† Crone, N. L.	142
Collins, G. H.	162	Cronin, T. P.	172
Collins, J. L.	159	Cronkhite, L. W., Jr.	133
Colman, R. W.	138	Crosby, D. L.	204
Colodny, A. H.	201	CROUT, R. J.	123
Colton, T.	194	Crowell, W. M.	159
Comb, D. G. 104,	143	Crowder, R. E.	115
Connelly, J. P.	184	Cruchaud, A.	110
Constable, J. D.	198	Cu, W. B.	164
Cook, C. D.	178	Culver, P. J. 13, 14,	129
Coolidge, C. A.	9	Cummins, J. F.	133
Coolidge, J. C.	159	Cunningham, R. D.	182
Coon, G. P.	152	Curran, P. F.	100
Coons, A. H.	109	Curtin, R. R.	190
Cooperband, S. R.	110	Curtis, G. W. 114,	125
Cooperman, S.	117	Curwen, W. L.	148
Cope, O.	196	Cutler, R. E.	159
Copel, J. W.	201	Cutler, R.	12
Copeland, B. E.	114	Czarniecki, W.	194
Cori, C. F.	12	Dalal, P. M.	164
Corley, G. J.	116	Dale, A. C.	241
Corson, J. M.	114	Dale, J. G.	241
Corwin, H. A.	162	Dalrymple, W.	133
Corwin, J. H.	162	Dalton, B. C.	201

† A. & S. Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Dammin, G. J.	14, 113	Dews, P. B.	121
Dandrow, R. V., Jr.	190	Dexter, C. J.	201
D'Angio, G. J.	175	Dexter, L.	126
Daniels, E. M.	156	Diamond, J.	123
Daniels, H. S.	159	Diamond, L. K.	177
Daniels, J. B.	110	Dickersin, G. R.	116
Darling, D. B.	175	Dickoff, H.	162
Darrow, R. A.	105	Dickson, W. A.	179
d'Autremont, C. C.	159	DiGirolamo, M.	110
Davidson, C. S.	126	Dine, R. F.	201
Davidson, E. M.	159	Dinsdale, H. B.	164
Davidson, G. E.	159	Dinsmore, P. R.	162
Davies, J. A. V.	178	DiPietro, D. L.	138
Davis, B. D.	14, 108	DiRienzo, A. J.	175
Davis, K. K.	181	Ditmore, D. A.	164
Davis, N. V.	11	Dixon, R. A.	12
Dawes, D. C.	156	Djaczenco, W.	97
Dawes, L. G.	152	Dobkin, J.	104
Dawson, D. M.	164	Dodge, P. R.	151, 152, 184
Day, M.	156	Dohlman, C.-H.	172
Dealy, J. B., Jr.	174	Donaldson, D. D.	173
deAraujo, W. C.	253	Donaldson, G. A.	199
Decker, B. L.	133	Donnellan, E. K.	179
Dederick, M. N. deM.	116	Donovan, D. E.	138
deElizalde, R. E.	138	Dorfman, L. E.	204
Defoe, E. C., Jr.	182	Dorsey, W. R.	179
DeFriez, A. I. C.	129	Douglas, J. P.	253
DeGiacamo, F. L.	175	Draskoczy, P. R.	122
deGraeff, J.	132	Dresner, E.	133
DeGroot, L. J.	133	Dreyfus, P. M.	156
deHaas, K. J.	179	Dreyfuss, J. R.	175
Dekker, A.	117	Driscoll, J. J.	184, 190
Delaney, T. B.	182	Driscoll, S. G.	114
d'Elseaux, F. C.	152	Drooker, J. C.	214
DeLoecker, W. C. J.	138	Drorbaugh, J. E.	178
DeLorme, T. L.	211	Druyan, R.	138
deMarneffe, F. L. A.	156	Dubin, D. T.	110
deMiquel, M. B.	138	Duda, G. A.	162
Denes, G.	110	Duhig, J. T.	114
Dennison, G. R.	190	Duhl, F. J.	159
Denny-Brown, D. E.	150	Duke, M.	138
Derow, H. A.	127	Dull, H. B.	138
DeSanctis, R. W.	142	Duncan, C. J.	187
Desautels, R. E.	199	Dunn, J. T.	138
Devine, J. E.	164	Dunning, J. M.	253
DeWan, C. J.	116	Dunphy, E. B.	171
DeWilde, H.	253		

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Durbin, R. P.	100	Eppinger, E. C.	13, 14, 88, 126
Dushay, F.	173	Epstein, H. D.	253
Dwyer, T. F.	152	Epstein, S. H.	152
Dyer, E. C.	179	Epstein, W.	101
Eades, M. F.	188	Erikson, E. H.	152
Earley, L. E.	138	Erikson, G. E.	30, 96
Easterday, C. L.	188	Ervin, F. R.	152
Easton, M. T.	172	Esmiol, P.	164
Easton, W. S.	199	Essemer, L. J.	181
Eaton, M. D.	109	Essig, A.	138
Eaton, R. G.	212	Esterquest, R. T.	13, 30
Ebisuzaki, K.	104	Etherington, J. W.	253
Eden, M.	193	Euchbaum, E. G.	204
Edmonds, C. J.	101	Evans, A. E.	179
Edwards, E. A.	96	Evans, J. R.	138
Edwards, G. S.	97	Ewalt, J. R.	125, 150
Efron, M. L. S.	179	Fahrenbach, W. H.	97
Egbert, L. D.	201	Fainstat, T.	191
Eger, W. H.	159	Fanning, E. A.	254
Ehrlich, H. L.	253	Farber, S.	113
Ehrmann, R. L.	116	Farese, R. V.	138
Eichberg, J., Jr.	107	Farkas, R. W.	164
Eickhoff, T. C.	136	Farnham, A. E.	110
Eisendrath, R. M., Jr.	164	† Farnsworth, D. L.	142
Eldred, S. H.	152	Farrell, D. J.	254
Eldredge, J. H.	212	Fasman, G. D.	104
Eldredge, L. L., Jr.	179	Faulkner, J. M.	10, 12
Eley, R. C.	178	Fawcett, D. W.	14, 30, 96
Ellenberg, J.	164	Faxon, H. H.	199
Ellett, W. H.	138	Federici, E. E.	138
Ellis, D. S.	133	Federman, D. D.	133
Ellis, L. B.	126	Feeney, J. J.	134
Elliston, W. A.	211	Feigon, J. H.	164
Elson, S. H.	142	Feingold, A. H.	159
Embree, L.	164	Feingold, D. S.	110
Emerson, K., Jr.	126	Feldman, D.	116
Emerson, R. P.	159	Felix-Davies, D.	138
Enders, J. F.	109	Fellers, F. X.	178
Endo, S.	199	Felsingner, von, J. M.	154
Engel, A. M.	132	Fendrick, G. M.	182, 184
Engel, E.	138	Ferguson, C. F.	214
Engel, L. L.	103, 143	Fern, D. J.	164
England, A. C., Jr.	156	Fernandez-Moran, H.	154
Engle, R. P., Jr.	164	Fiala, M.	138
Enjoji, M.	117	Fiedler, M. F.	154
Ennis, H. L.	122	Field, R. A.	130

† A. & S. Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Fienberg, R.	114	Frazier, H. S.	134
Finck, A. J.	199	Freedberg, A. S.	15, 127
Fine, J.	196	Freedberg, I. M.	149
Fineman, A. D.	188	Freiman, D. G.	113
Finesinger, A.	156	Freinkel, N.	127
Finland, M.	126	Freinkel, R. K.	148
Fischbein, J. W.	134	Fremont-Smith, K.	136
Fischberg, B. W.	162	Fremont-Smith, P.	130
Fischer, J. J.	123	Frerichs, H. E.	105
Fisher, C. M.	151	Freydinger, J. E.	116
Fishman, N.	254	Friberg, U. A.	212
Fisk, J. B.	11	Fried, M. A.	154
Fiske, C. H.	268	Friedlich, A. L.	134, 185
Fitzpatrick, T. B.	14, 148	Friedman, E. W.	199
Flacke, W. E.	122	Friedman, E.	125
Flake, C. G.	214	Friedman, L. J.	164
Flanagan, J. B., Jr.	254	Friedman-Kein, A. E.	149
Flanagan, J. M. St.F.	138	Friend, D. G.	30, 128
Flanigan, W. J.	138	Frittelli, G.	204
Flatt, J. P.	105	*Frothingham, T. E.	120
Flax, M. H.	116	Fu, S.-C. J.	104, 118
Fleischner, F. G.	268	Fukuyama, T. T.	110
Fleming, A. M.	159	Fung, J. H. Y.	204
Fleming, T. C.	164	Funkenstein, D. H.	151
Flerlage, S. Q., Jr.	164	Furshpan, E. J.	122
Flowers, H. M.	105, 143	Fusillo, M. G.	165
Flynn, W. F.	199	Futterman, S.	174
Foisie, P. S.	199	Fuwa, K.	132
Folch-Pi, J.	103	Gabuzda, T. G.	138
Foley, D. F.	117	Gair, D. S.	156
Foley, G. E.	115	Gajewski, J.	138
Follensby, E. M.	132	Galan, E.	179
Forbes, A.	268	Galdston, R.	159, 185
Forbes, A. P.	130	Gallagher, J. R.	178
Ford, R.	125	Gallant, D. H.	188
Forsyth, B. R.	138	Gallup, H. E.	178
Foster, G. S.	134	Gallup, J. W.	182
Fox, E. O.	117	Gamble, W. J.	182
Fov, H. M.	151	Ganz, R. N.	179
Frank, A. A.	179	Ganz, V. P.	165
Frank, E. D.	197	Garceau, A. J.	136
Frank, H. A.	197	Garcia, A. M.	138
Frank, T.	159	Garcia, C. R.	188
Franklin, W.	134	Gardella, J. W.	13, 14, 130
Frawley, S. M.	181	Gardner, F. H.	128
Frazier, C. N.	268	Gardner, G. E.	150, 185

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Gargill, S. L.	127	Gold, H. S.	254
Garland, H. L.	175	Gold, W. M.	136
Garland, J.	12	Gold, N. I.	179
Garner, J. T.	206	Goldbarg, J. A.	199
Garratt, J. R.	165	Goldblatt, J. E.	201
Garrettson, L. K.	184	Goldhaber, P.	118, 254
Gary, J. E.	175	Goldings, H. J.	160
Gates, O.	114	Goldman, H.	117
Gates, P. H.	156	Goldman, J. K.	139
Gathman, G. E.	206	Goldman, M.	156
Gauld, A. G.	188	Goldstein, D. A.	101
Gauthier, G. F.	97	Goldstein, G. A.	139
Gauthier, J.	160	Goldstein, L.	104
Geiger, H. J.	194	Goldthwait, J. C.	136
Geller, M.	165	Gomez, B.	123
Gellis, S. S.	178	Gomez, R.	204
Gentili, B.	175	Goodale, W. T.	130
George, J. M.	105	Goodell, R. A., Jr.	184
Gephart, F. T.	199	Goodson, W. H., Jr.	165
Gerald, P. S.	178	Goodwin, J. W.	190
Gergely, J.	132	Gorbach, A. C.	189
Geronimus, L. H.	115	Gordon, S. K.	202
Gezelius, K. G. C.	139	Gore, H. M.	114
Gibbons, R. J.	254	Gore, I.	113
Gibson, J. G., 2d	130	Gorini, L. C.	109
Giddon, D. B.	254	Gorlin, R.	128
Gifford, G. E., Jr.	160	Goss, D. A.	191
Gifford, S. R., Jr.	151	Gough, M. H.	204
Gilbertson, J. R.	105	Grable, E.	204
Gill, B. F.	156	Graham, J. H.	115
Gill, T. J., 3d	117	Graham, J. B.	188
Gillespie, L.	189	Graham, J. R.	134
Gilman, Samuel	198	Graham, K. M.	136
Gilman, Sid	165	Grant, W. M.	173
Gilmore, C. E.	117	Gravallese, M. A., Jr.	136
Gilmore, L. L.	105	Gray, E. B., Jr.	200
Ginzburg, B. Z.	101	Gray, S. J.	127
Gitlin, D.	178	Green, G. M.	139
Glauser, E. P. M.	182	Green, J.	160
Glazier, J. B.	139	Green, M. N.	115
Gleason, D. C.	176	Green, S.	179
Glenister, D. W.	101	Green, T. H., Jr.	188
Glicklich, E. A.	149	Green, W. L.	142
Glimcher, M. J.	211	Green, W. T.	210
Glud, E.	156	Greenberg, H. L.	202
Goerke, R. J.	101	Greenberg, M. S.	134
Goethals, T. R.	268	Greenberg, R. M.	160

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Greenblatt, G. R.	156	Hall, R.	139
Greenblatt, M.	151	Hall, T. C.	134
Greene, R. J.	206	Hall, V. R., Jr.	160
Greenough, W. B., 3d	142	Hallen, A.	105, 144
Greep, J. M.	204	Hallenbeck, D. F., Jr.	160
Greep, R. O. 13, 14, 87, 96,	254	Hallett, P. J.	165
Gregg, W. I.	189	Hallowell, P.	198
Gregory, E. A.	181	Hamashima, Y.	109
Griesemer, R. D.	148	Hamlin, E., Jr.	196
Griffey, L. E.	214	Hamlin, H.	202
Griffin, P. P.	211	Hammer, E. "I"	139
Griffiths, C. T.	191	Hamolsky, M. W.	128
Grillo, H. C.	198	Hancock, R.	110
Grinspoon, L.	160	Handelman, C. S.	254
Grogan, R. H.	189	Handler, A. H.	115
Gross, C. S.	11	Harano, M.	206
Gross, J.	128	Hardman, R. P.	182
Gross, R. E.	196	Hardy, H. L.	129
Gross, S.	182	Hardy, I. B., Jr.	202
Grosser, G.	154	Hardy, T. K.	200
Grossman, M. S.	182	Harken, D. E.	196
Grover, J. W.	191	Harris, C. A.	116
Grunberg, E.	160	Harris, G. B. C.	175
Grunebaum, H. U.	160	Harris, H. I.	160
Grun, J. A.	182	Harris, P. D.	204
Gryboski, J. S.	134	Harris, W. H.	211
Gryska, P. F.	200	Harrison, J. H.	196
Guild, W. R.	130	Harrison, R. H.	154
Gundersen, T.	172	Hart, M. C.	182
Guralnick, E. A.	202	Harter, J. G.	111, 132
Guralnick, W. C.	254	Hartman, S. C.	103
Gurewich, V.	134	Hartmann, E. L.	162
Gustafson, L. A.	162	Harvie, N. R.	105
Gutmann, D. L.	154	Harwood, R.	134
Hacker, H.	204	Hasenbush, L. L.	152
Hackett, T. P.	156	Hashizume, Y.	204
Hacking, P. M.	176	Haskins, D. M.	134
Haessler, H. A.	139	Hastings, A. B.	268
Hafter, S. S.	162	Hatch, F. T.	130
Hager, E. B.	139	Hauck, A. J.	179
Hagerman, D. D.	103	Hauser, G.	104
Haggard, M. E.	181	Havens, L. L.	152
Haggerty, R. J.	178	Hawes, L. E.	175
Hagihira, H.	101	Hay, E. D.	96
Hajj, S. N.	191	Haycox, J. A.	160
Haley, W. F., Jr.	160	Hayes, R. E., 3d	165
Hall, A. P.	136	Hayman, S.	174

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Haynes, E. R.	253	Hill, E. V.	125
Haynes, F. W.	132	Hill, J. M.	172
Hazard, S. W.	179	Hill, M. C.	176
Head, J. M.	202	Hill, W. R., Jr.	148
Heath, C. W.	131	Hindman, D. H.	189
Heath, P.	268	Hinman, C. H.	189
Hedley-Whyte, J.	202	Hinojosa, E. E.	139
Heerdegen, D. K.	202	Hirsch, C. A.	111
*Hegsted, D. M.	107	Hirsch, P. F.	122, 253
Heimann, R.	117	Hirschhorn, A. M. M.	165
Heisey, S. R.	101	Hirst, A. E.	115
Held, D.	101	Hoagland, H.	12
Helfand, Z.	202	Hoagland, M. B.	109
Helfant, M. H.	204	Hoar, C. S., Jr.	97, 200
Hellerstein, E. "E"	114	Hobbs, J. T.	204
Helman, M. E.	149	Hoch, F. L.	130
Helpern, M. M.	116	Hodgkin, W. E.	184
Henderson, L. W.	139	Hoefnagel, D.	156
Hendren, W. H., 3d	200	Holden, R. B.	134
Hendrick, I.	150	Holder, R.	156
Heninger, G. R.	165	Hollenberg, M.	101
Henneman, E.	100	Holmes, E. M.	214
Henry, L.	116	Holt, P. R.	139
Henshaw, E. C.	111	Holzman, M. S.	162
Herbert, V. D.	130	Honorato, R.	104
Herbst, A. L.	191	Hood, H. P.	12
Herd, J. A.	101	Hood, W. B., Jr.	139
Herm, R. J.	173	Hoover, T. D.	254
Herman, A. E.	165	Horenstein, S.	152
Hermanson, L.	198	Horiuchi, M.	254
Herrera, F. K.	101	Horne, H. W., Jr.	189
Herrera-Acena, M. G.	142	Horowitz, E. B.	111
Hersey, F. C.	160	Houghton, J. D.	116
Hershgold, E. J.	182	Howard, F. A.	122, 185
Hershman, H. A.	202	Howard, P. M.	152
Hertig, A. T.	15, 88, 113	Hoye, S. J.	200
Herzan, F. A.	176	Huang, W. Y.	199
Herzan, H. M.	156	Hubbell, J. P., Jr.	180
Hess, H. H.	154	Hubel, D. H.	121
Hiatt, H. H.	111, 128	Hugenberger, P. W.	211
Hickler, R. B.	130	Hugenholz, P. G.	181
Hicks, S. P.	113	Huggins, C. E.	200
Hiebert, C. A.	202	Humbel, R. E.	139
Higgins, E. A., Jr.,	136	Hunt, E. E., Jr.	253
Hilfer, S. R.	97	Hunter, M. J.	103
Hill, A. M.	180	Hunter, T. H.	10, 12

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Huntington, D. S.	154	Jockin, H.	117
Hurst, A. L.	214	Joel, C. D.	105
Hurwitz, D.	128	Joftes, D. L.	115
Huston, C. J. W.	204	Johannett, P.	160
Hutchinson, B. T.	173	Johansson, B. I.	254
Huttenlocher, P. R.	165	Johnson, A. L.	268
Huvos, A.	142	Johnson, A. M.	184
Hyde, R. W.	157	Johnson, C. C.	171
Hyland, J. W.	139	Johnson, J. P.	191
Ibayashi, H.	253	Johnson, L. D.	115
Inchiosa, M. A., Jr.	132	Johnson, R. T.	165
Incze, J. S.	116	Jones, C. M.	268
Ingbar, S. H.	128	Jones, D. P.	139
Ingersoll, F. M.	187	Jones, H. W., Jr.	134
Ingraham, F. D.	196	Jones, I. C.	254
Irving, J. T.	97, 254	Jones, R. H.	134
Irwin, J. S.	214	Jones, R. K.	117
Isenberg, P. L.	165	Jones, R. L.	190
Ishikawa, K.	204	Jones, T. C.	114
Isom, J. B.	165	Jones, W. A.	117
Israel, J.	204	Jones, W. S.	188
Israel, M.	105, 118	Jones, W. N.	211
Isselbacher, K. J.	128	Joplin, R. J.	211
Ito, S.	97	Joseph, A. T.	202
Jackson, J. H.	134	Joseph, J.	165
Jackson, L.	160	Joseph, J. B.	184
Jackson, R. G.	189	Josephs, D. C.	10
Jacob, H. S.	139	Joshi, S. G.	106
Jacobey, J. A.	204	Josimovich, J. B.	191
Jacobs, R. L.	212	Joslin, E. P.	268
Jacobsen, J. G.	139	Julian, G. R.	123
Jacobson, B. M.	134	Jungas, R. L.	106
Jacobson, H. N.	189	Kahana, E. M.	165
Jagger, P. I.	142	Kahana, R. J.	157
Jain, K. K.	204	Kahn, E.	160
Jako, G. J.	214	Kahne, M. J.	157
Jakus, M. A.	172	Kaitz, A. L.	134
James, L. P., Jr.	117	Kalayci, M. N.	182
Jandl, J. H.	128	Kalckar, B. W.	111, 132
Janeway, C. A.	177	Kalckar, H. M.	103, 142
Jantet, G. H.	205	Kalman, S.	109
Jardetzky, O.	121	Kamiyama, S.	139
Jazowski, J. P.	254	Kan, Y.-W.	139
Jeanloz, R. W.	103, 143	Kandel, D. B.	162
Jessiman, A. G.	198	Kandel, E. R.	165
Jewett, J. F.	188	Kane, C. A.	157
Jick, H.	123	Kane, R. K.	9

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Kanfer, J. N.	106	Kevorkian, A. Y.	190
Kang, E. S. S. S.	182	Kevy, S. V.	180
Kannel, W. B.	193	Khalafallah, M.	116
Kanter, S. S.	157	Khaw, K. T.	182
Kantor, M.	162	Khuri, R. N.	101, 139
Kaplan, E.	202	Kiang, N. Y.	213
Kaplan, M. E.	139	Kibrick, S.	178
Kaplan, S.	157	Kiernan, E. R.	205
Karai, G. S.	205	Kilpatrick, R.	122, 254
Karnovsky, M. L.	15, 103	Kim, Y. H.	255
Karnovsky, M. J.	114	Kimura, R.	213
Karp, M.	211	King, J. V. F.	139
Kasha, M.	100	King, R. J. B.	106
Kashket, S.	132	Kingsland, L. C., Jr.	179
Kass, E. H.	109, 118, 143	Kinney, J. M.	198
Katchalsky, A.	100	Kinoshita, J. H.	173
Katsas, G. G.	125	Kinter, W. B.	100
Katsuhara, K.	205	Kistner, R. W.	187
Katz, E. P.	212	Kjellberg, R. N.	200
Katz, S. L.	178	Klayman, M. I.	134
Katzow, J. J.	165	Klein, D. M.	206
Kay, M. N.	181	Klein, D. C.	154
Kayce, M. M.	160	Klein, J. O.	139
Kazanjian, V. H.	268	Kleinman, L. I.	184
Kearsley, R. B.	180	Klerman, G. L.	157
Keene, W. R.	139	Kliman, A.	134
Kelleher, P. C.	106	Klotz, R. E.	214
Kelleher, R. T.	122	Knobil, E.	100
Keller, J. W.	136	Knowles, J. H.	130
Keller, M. D.	194	Knox, D. L.	173
Kellett, M. A.	175	Knox, W. E.	103
Kelley, R. M.	134	Koch, A. W.	214
Kelley, R. L.	160	Koch, J. P.	106
Kelley, S. B.	197	Koch-Weser, J.	123
Kellogg, D. A.	106	Kohner, D.	182
Kelly, L. T.	202	Koller, A. N.	13
Kendall, L. G.	200	Konigsmark, B. W.	162
Kennedy, E. P.	102	Kopaid, H. H.	101
Kennedy, J. F.	10	Kornfeld, W.	160
Kenney, F. J., Jr.	206	Kosunen, T. U.	111
Kent, C.	214	Koumans, A. J. R.	165
Keppel, F.	87	Kozol, H. L.	152
Kermond, W. L.	211	Krane, S. M.	130
Kerr, W. S., Jr.	197	Kranes, A.	128
Kessel, D. H.	123	Krasnow, N.	139
Ketchum, P.	12	Kraus, P. S.	160
Keuper, C. S.	149		

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Kravitz, A. R.	160	Leadbetter, G. W.	200
Kravitz, E. A.	123	Leadbetter, W. F.	196
Krayer, O.	121	Leaf, A.	127
Krickstein, H. I.	117	Leahey, B. D.	171
Krimms, M. B.	160	Leas, M. J.	182
Kripke, B. J.	202	Leavitt, T., Jr.	190
Kris, A. O.	165	LeBaron, F. N.	104
Kritzman, J.	134	Lebret, L.	255
Kroll, A. J.	173	LeCompte, P. M.	113
Kruger, L. E.	181	Lee, F. B.	202
Kubota, Y.	205	Lee, J. B.	139
Kubzansky, P. E.	154	Leeding, M. V.	255
Kudarauskas, E. N.	157	Leeman, C. P.	165
Kuffler, S. W.	121	Lees, M. B.	154
Kuhns, J. G.	211	Lees, M. H.	182
Kuhns, W. J.	109	Lefemine, A. A.	202
Kulczycki, L. L.	180	Legg, M. A.	116
Kuldau, J. M.	162	Leiderman, G. F.	154
Kulka, J. P.	114	Leiderman, P. H.	152, 157
Kundsins, R. B.	199	Leigh, A. J. E.	13
Kunz, L. J. J.	109	Leighton, H. T.	189
Kupfer, C.	174	Lenneberg, E. H.	154
Kurland, G. S.	128	Lent, R. H.	162
Kuten, J.	165	Lentine, J.	214
Kuwabara, T.	174	Leon, H. A.	117
Ladd, W. E.	268	Leonard, L. M.	212
LaFarge, C. G. C.	182	Lerner, A. M.	140
Laforet, M. T.	132	Lerman, J.	128
Lamb, C. A.	200	Leskowitz, S.	109, 143
Lamb, R. N.	149	Lesses, M. F.	134
Lambert, P. B.	199	Lester, R.	140
Lamborg, M. R.	132	Lev, M.	111
Lamdin, S. J.	202	Levenson, S. S.	206
Lamkins, B. E.	149	Leventhal, C.	165
Lamont, J. H.	157, 185	Lever, W. F.	148
Lamont, T. S.	9	Levey, B.	165
Landis, E. M.	100	Levin, S.	157
Landsman, E.	160	Levine, B.	157
Lane, F. R.	189	Levine, H. D.	128
Lane, J. M.	111	LeVine, H. O.	160
Langlois, J.-L.	157	Levine, S. A.	268
Lapierre, C. M.	139	Levingston, A. G.	160
Lauler, D. P.	139	Levinson, D. J.	151
Laumas, K. R.	106	Levinthal, J. D.	110
Laver, M. B.	202	Levison, H.	183
Lawson, D. E. M.	106	Levitsky, W. S.	165
Leach, L. B.	255	Lewenstein, H. J.	202

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Lewin, E.	162	Lubin, M.	121
Lewis, D. K.	214	Lucas, J. E.	134
Lewis, J. L., Jr.	191	Ludwig, A. O.	152
Li, T.-K.	140	Lumbard, J. E., Jr.	10
Lichtenberg, F. von	114	Lund, C. C.	268
Lieber, C. S.	134	Lunzer, S.	205
Liebman, L.	165	Luongo, M. A.	125
Liebman, S. D.	172	†Lyden, F. J.	194
Lifton, R. J.	155	Lyman, C. P.	97
Like, A. A.	116	Lynch, G. W.	134
Lin, E. C. C.	104	Lythgoe, J. P.	205
Lincoln, R. C.	255	MacAusland, W. R., Jr.	211
Lindberg, M. C.	106	MacCollum, D. W.	197
Lindemann, B.	101	MacDonald, A. S., Jr.	180
Lindemann, E.	150	Macdonald, J. B.	111, 255
Lindgren, I.	134	MacDonald, R. A.	114
Lindsley, O. R.	152	MacDonald, W. J.	190
Linenthal, A. J.	128, 185	MacFadyen, D. J.	165
Lipsitt, D. R.	165	MacGillivray, M. H.	183
Liptsitz, P. J.	183	Mackie, J. E.	136
Listgarten, M.	255	MacLaren, J. A.	188
Litt, M.	109	MacLeod, J. C.	184
Little, A. B.	188	Macmillan, A. S., Jr.	175
Littlefield, J. W.	130	MacNamee, D. H.	181
Littmann, D.	130	Macnamara, T. E.	202
Litwin, B.	205	Madden, E. J.	212
Livingstone, J. B.	165	Maddock, C. L.	115
Lloyd, J. B.	202	Magraw, C. E.	160
Locke, E. A., Jr.	10	Mahon, W. A.	123
Locke, S.	157	Mahoney, E. M.	200
Lockhart, A. J.	134	Maiztegui, J. I.	111
Loeb, R. F.	11, 12	Majno, G.	113
Loesche, W. J.	255	Makkay, E. S.	153
Loftfield, R. B.	128	Makoff, R. K.	106
Lombroso, C. T.	178	Malkiel, S.	132
Longino, L. A.	198	Mallinckrodt, L. E.	10
Lorenz, M.	157	Mallory, G. K.	115
Losch, P. K.	255	Maloney, A. M.	255, 268
Losowsky, M. S.	140	Maloof, F.	136
Lotz, M.	140	Malt, R. A.	206
Lovina, T. O.	140	Maltsberger, J. T., 3d	162
Low, H. B. C.	205	Mann, L. T., Jr.	104, 118
Low, I. E.	110	Mann, W.	157
Lowell, F. C.	128	Mansfield, J. S.	134
Lowell, J. D.	211	Manterola, A.	163
Lewis, S.	200	Marble, A.	128

† P.A. Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Marbury, W. L.	9	McKittrick, J. B.	200
Marcello, D. E., Jr.	202, 206	McKittrick, L. S.	268
March, A. F., Jr.	125	McLaughlin, W. F.	157
Marcus, P. S.	200	McMahon, A. W.	160
Marcus, S.	10	McManus, T. J.	132
Marin-Padilla, M.	117	McMillan, C. W.	180
Mark, V. H.	200	McNeeley, W. F.	134
Marks, J. H.	175	McNeill, I. F.	205
Marshall, J. M.	122	McNeill, J. M.	175
Marshall, V. C.	205	McPhedran, A. M.	166
Marston, J. A. P.	205	Meadow, H. C.	13, 14, 87
Martel, R. J.	125	Means, J. H.	268
Mashford, M. L.	123	Medalie, M.	180
Masland, R. P., Jr.	178	Mehlman, R. D.	163
Massell, B. F.	143, 178	Meigs, J. V.	268
Masters, R.	149	Meiss, E.	166
Matson, D. D.	196	Meissner, W. A.	113
Matsumoto, M.	106	Mekbel, S.	118
Matusow, R. J.	255	Melbin, M.	157
Matz, M. H.	149	Mello, N. K.	163
Maude, D. L.	101	Meltzer, P. E.	268
*Mayer, J.	102	Mendelson, J. H.	153
Mayer, R. F.	157	Menninger, R. W.	163
Maynard, E. P., 3d	136	Menzer-Benaron, D.	153
Mayo, R. A.	211	Merler, E.	179
Mazumbar, P. M. H.	181	Merriam, J. C., Jr.	116
Mazzone, H. M.	123	Merrifield, J. F.	166
McArthur, J. W.	128, 185	Merrill, D.	130
McBay, A. J.	125	Merrill, J. P.	128
McCarter, R. H.	153	Merrill, K., Jr.	97, 202
McCarthy, P. L.	148	Messner, E.	163
McCarthy, R. E.	116	Meyer, R. J.	180
McCourt, W. F.	160	Michael, J. G.	112, 179
McCrary, D. J.	165	Michaels, J. J.	153
McDaniel, L. T.	134	Michelsen, J. J.	157
McDermott, W. V., Jr.	197	*Michelson, E. H.	120
McDonald, F. C.	180	Migliore, S. A.	255
McDonald, L. W.	115	Miller, C. C.	202
McElroy, N. H.	11	Miller, E. V.	202
McGinty, J. B.	212	Miller, J. Q.	166
McGovern, J. J.	180	Miller, J. M.	134
McGugan, A. D.	149	Milligan, F. D.	140
McGuire, M. T.	165	Mills, J. A.	134
McIntyre, H. D., Jr.	165	Milofsky, A. H.	163
McKay, R. H.	140	Miner, L. M. S.	268
McKhann, G. M.	165	Miner, R. L.	255

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Ming, P. L.	118	Mullen, J. J.	166
Ming, S.-C.	114	Muller, R. L.	117
Mirel, E.	163	Mulligan, W. J.	188
Mishler, E. G.	155	Munkner, T.	140
Mitchell, A. M.	134	Munroe, V., Jr.	12
Mitry, H.	157	Munson, P. L.	121, 255
Mitus, A. T.	180	Murawski, B. J.	155
Mixer, C. G.	268	Murphy, W. F.	153
Mixter, C. G., Jr.	200	Murray, A. B.	183
Miyazaki, Y.	205	Murray, J. E.	198
Modell, A. H.	157	Mushatt, C.	153
Modest, E. J.	115	Muskus, A. J.	123
Moffat, R. G.	175	Mussells, F. L.	193
Mogil, S. L.	166	Myers, G. S.	130
Mogul, S. L.	157	Myerson, D. J.	153
Mokrasch, L. C.	104	Nadas, A. S.	177
Moldveen, M. G.	116	Naficy, K.	183
Monroe, R. G.	179	Nagai, Y.	140
Monroe, R. T.	130	Nagataki, S.	140
Montagna, W.	148	Nagle, R. J.	12
Montgomery, W. W.	214	Naiman, J. L.	183
Moore, A. A. D.	205	Nakamura, F. F.	183
Moore, E. W.	140	Nardi, G. L.	197
Moore, F. D.	194	Narter, N.	205
Moorrees, C. F. A.	15, 255	Nason, L. H.	200
Morgan, C. L.	183	Naterman, H. L.	135
Morgan, W. S.	114	Nathan, D. G.	132
Moroz, L. A.	140	Nathanson, L.	140
Morrill, R. G.	166	Nau, O. S.	181
Morris, M.	181	Nauen, A. C.	181
Morris, T. A., Jr.	157	Naujoks, R.	255
Morrison, R. S.	134	Nemiah, J. C.	153
Morse, L. S.	181	Nesburn, B. P.	184
Morse, W. H.	122	Neuhauser, E. B. D.	174
Moschella, S. L.	149	*Neva, F. A.	120
Moseley, A. L.	125	New, P. F. J.	175
Moseley, E. B.	160	Newell, J. L.	189
Moser, H. W.	157	Newell, J. M.	194
Mosher, H. A.	172	Newman, J. J.	166
Moss, G.	97	Newton, F. C.	269
Moulton, R. T.	180	Newton, R. A.	200
Moyed, H. S.	109	Nichols, G., Jr.	13, 14, 107, 129
Mueller, E. H.	160	Nickerson, A. L.	11
Mueller, B. C. G.	166	Nikaido, H.	106
Mueller, H. L.	178	Nikolaidis, D.	176
Muellner, S. R.	198	Nilsson, C. G.	205

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Nordby, G. L.	104	*Pan, C.	120
Norman, L. R.	132	Pappas, P.	123
Norton, C. P.	136	Pappenheimer, J. R.	100
Norton, P. L.	211	Parkhurst, E. C.	200
Notman, M. T.	160	Parlow, A. F.	191
Novitch, A. M.	140	Parsons, A.	157
Oaks, J. H.	13, 255	Pascasio, F. M.	140
O'Brien, P. I.	212	Pasyk, S.	140
O'Brien, R. G.	176	Patch, V. D.	166
O'Brien, T. F.	142	Pathak, M. A.	148
O'Dea, A. E.	116	Patterson, R. H.	12
Ofner, P.	132	Patterson, W. B.	198
O'Hara, E. T.	202	Paul, N. L.	157
Oikawa, M.	172	Paulus, H.	105
Ojemann, R. G.	202	Payne, E. C., Jr.	157
Oken, D. E.	132	Pearlman, J. L.	180
Olin, H. S.	160	Pearlman, W. H.	197
Olsen, W. A.	136	Peart, W. S.	131
Omote, Y.	140	Pease, P. R.	12
Oncley, J. L.	103	Pechet, G. S.	116
O'Neill, G. L.	255	Pechet, L. P.	130
Onesti, S. J., Jr.	166	Pechet, M. M.	130
Opsahl, J. C.	136	Peebles, R. R.	157
Oren, R.	106	Peebles, T. C.	180
Orloff, S. D.	140	Peffer, C. J.	136
Orme, R. J.	181	Pelargonio, S.	183
Orne, M. T.	153, 157	Pendergrass, H. P.	176
Orzalessi, M.	183	Peng, T.-C.	123, 255
Osborne, J.	181	Perea, V. D.	140
Osborne, M. P.	197	Perera, R. D.	140
Oski, F. A.	183	Perlo, V. P.	158
Osterberg, D. H.	160	Pernokas, L. N.	200
Ostrow, J. D.	135	Perrin, G. M.	161
Ottenstein, D.	160	Persky, A. D.	166
Ouchi, H.	205	Persson, I.	255
Ozsoylu, S.	183	Peters, C. M.	135
Padykula, H. A.	97	Peters, J. A.	116
Page, E.	101, 132	Peterson, J. E.	132
Page, L. B.	135	Peterson, O. L.	193
Paine, D.	136	Petrie, A.	155, 207
Paine, R. S.	178	Pfeffer, W., Jr.	180
Palay, S. L.	96	Pfefferkorn, E. R., Jr.	110
Palma, R.	140	Philipps, G. R.	140
Palmerio, C.	205	Phillips, A. W.	202
Palombo, S. R.	166	Phillips, J. H.	190
Pamukcu, F. S.	140	Piazza, E. U.	166

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Picard, E. H.	166	Pusey, N. M.	9, 13, 14, 87
Pidgeon, I. S.	202	Putschar, W. G. J.	115
Piemme, T. E.	140	Quadfasel, F. A.	158
Pier, A. S., Jr.	135	Quarles, J. R.	12
Pierce, D. L.	214	Quarton, G. C.	153
Pierce, E. C., Jr.	200	Quigley, T. B.	197
Pierce, I. R.	155	Quinby, W. C., Jr.	200
Pieringer, R. A.	106	Rabelo, A. A., Jr.	205
Pike, G. M.	135	Rabinov, K. R.	176
Pikula, J. V.	200	Rabkin, M. T.	140, 142
Pinals, R. S.	140	Rachlin, W. S.	202
Pineda, E. P.	199	Rafaelsen, O. J.	132
Pippitt, R. B.	172	Raker, J. W.	197
Pitt, B.	142	Randolph, J. G.	202
Pittell, R. S.	183	Rapin, A. M. C.	105, 143
Plotkin, G. R.	140	Rappaport, S.	161
Plzak, L. F., Jr.	205	Raslavicius, P. A.	117
Point, W. W., 3d	135	Rasmussen, E. G.	255
Polet, H.	118	Ravin, H. A.	131
Pollen, A.	172	Reardon, P. C.	11
Pontoppidan, H.	200	Record, E. E.	211
Pope, A.	151	Rectanus, D. R.	180
Porter, P. J.	140	Reddy, W. J.	105, 143
Posada, H.	183	Reed, G. F.	213
Post, J. M.	166	Rees, D. H.	161
Postel, S.	136	Rees, S. B.	135
Potee, K. G.	140	Regan, C. D. J.	172
Pothier, L.	132	Reichard, J. F.	161
Potsaid, M. S.	175	Reid, D. E.	187
Potter, B. E.	191	Reid, W. A.	190
Potter, C.	190	Reidy, J. A.	211
Potter, D. D.	122	Reimer, S. M.	132
Potter, H. J.	181	Reiser, D. E.	158
Potter, M. G.	161	Remington, J. S.	141
Pradilla, A.	183	Rendall, E. S.	136
Prager, A.	161	Renold, A. E.	129
Prather, G. C.	197	Resnick, R. H.	136
Pratt, H. I.	11, 12	Reuber, M. D.	117
Pratt, L. O.	13	Revel, J.-P.	97
Prensky, A. L.	166	Rever, G. W.	163
Prescott, R.	142	Rexford, E. N.	154
Preuss, H. G.	161	Reyersbach, G. C.	180
Pritchard, E. T.	104	Reynolds, E. S., Jr.	118
Proctor, M. H.	136	Reynolds, J. R.	11, 87
Prod'hom, L. S.	183	Reynolds, V. H.	206
Prout, C.	130, 135	Rheingold, J. C.	155
Purdy, R. H.	188	Rice, J. O.	163

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Rich, M. R.	155	Rosenthal, A.	184
Richards, W. A.	135	Rosenthal, E.	256
Richardson, E. P., Jr.	151	Rosenthal, M. K.	184
Richardson, E. L.	12	Rosenthal, R. A.	163
Richardson, G. S.	198	Rosoff, C. B.	200
Richardson, J. R.	213	Ross, R. A.	178
Richie, R. H., Jr.	180	Rossi, A. M.	155
Richman, S. M.	142	Roth, W. D.	97
Richmond, J. E.	105	Rothblatt, J. M.	256
Rieder, S. V.	103, 143	Rouillard, F.	189
Rierner, K.	172	Rowbotham, J. L.	200
Riggs, B. C.	153	Rowe, C. R.	211
Riordan, J. F.	141	Rowland, C. V., Jr.	166
Ripley, F. W., Jr.	190	Ruben, H. L.	181
Riseman, J. E. F.	129	Rubenstein, H. S.	112, 205
Ritvo, M.	174	Rubin, W.	142
Robbins, L. L.	174	Ruboy, J. S.	181
Robbins, P. G.	190	Rudolf, L. E.	207
Robbins, S. L.	115	Ruiz-Aguilar, G. A.	206
Robertson, J. D.	151	Ruscio, J. F.	200
Robey, J. S.	180	Rushton, W. A. H.	100
Robinson, C. R.	116	Russell, R. R.	163
Robinson, D. P., Jr.	10	Russfield, A. B.	115
Robinson, P. M.	161	Rutenburg, A. M.	198
Robson, K. S.	166	Rutenburg, S. H.	199
Rochlin, G.	151	Rutstein, D. D.	193
Rock, J. C.	269	Ryan, E. J.	155
Rodkey, G. "V"	202	Ryan, G. M., Jr.	190
Rodriguez y Legaspi, F.	115	Ryan, K. J.	189
Roe, C. F.	97, 205	Ryan, T. J.	137
Roen, S. R.	155	Ryser, H. J. P.	123
Rogers, A. E.	117	Sabath, L. D.	141
Rogers, W. P., Jr.	202	Sabbaga, E.	141
Rolett, E. L.	141	Sabbath, J. C.	161
Romanul, F. C. A.	153	Sachar, E. J.	166
Ronat, J. G.	166	Sachsse, E.	176
Roopenian, A.	214	Sachs, B. J.	173
Ropes, M. W.	129	Sacks, S.	190
Rose, A. L.	183	Sadowsky, N. L.	176
Rose, H. E. O.	181	Sadrieh, M.	206
Rosen, F. S.	183	Safon, L. E.	190
Rosen, V. J., Jr.	118	Sagall, E. L.	135
Rosenberg, E. H.	255	St. Aubin, P. M. G.	175
Rosenblatt, G.	142	St. Goar, W. T.	135
Rosenblith, J. F.	153	Salhanick, H. A.	187
Rosenblith, W. A.	213	Salisbury, A. J.	181
Rosenfeld, L.	202	Saltonstall, W. G.	10

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Salzman, E. W.	200	Schwartz, L. A.	158
Samaha, E. C. A.	256	Schwartz, M. S.	155
Sanchez, G. C.	135	Schwarz, F. A. O.	10
Sandler, A. I.	141	Scott, A. W., Jr.	173
Sanger S.	166	Scott, J. F.	97, 143
Sapir, P. E.	166	Scully, R. E.	114
Sarris, S. P.	203	Seale, E. S.	172
Sasahara, A. A.	135	Sear, H. S.	176
Satake, M.	141	Sears, B. R.	200
Satin, D. G.	163	Sears, E. M.	180
Sato, O.	206	Seeler, A. O.	131
Saunders, G. A.	135	Segal, M. D.	125
Saubrey, J. S.	206	Segel, A. L.	201
Sax, D. S.	166	Seiji, M.	148
Saxena, K. M.	183	Selenkow, H. A.	131
Saxon, L.	135	Silverstone, B.	158
Sayre, J. W.	180	Silverstone, N. J.	135
Scannell, J. G.	197	Selzer, J. G.	161
Sceery, R. T.	180	Selzer, M. A.	166
Schaffer, J. H.	135	Semrad, E. V.	15, 151
Schall, L. A.	269	Senior, B.	183
Schapiro, R. H.	141	Senior, J. R.	141
Scharl, A. E.	158	Sercarz, E. E.	111
Schatzki, R.	174	Sewall, W. F.	190
Schenker, S.	141	Sexton, L. I.	189
Schepens, C. L.	172	Shader, R.	166
Scherman, R. P.	137	Shah, R. C.	206
Schildkraut, J. J.	166	Shahidi, N. T.	180
Schlesinger, F. G.	132	Shaka, J. A.	116
Schmid, K.	131	Shambaugh, B.	158
Schmid, R.	129	Shammash, J. B.	203
*Schmidt, W. M.	185	Shanberge, J. N.	115
Schmier, J.	122	Shapiro, D.	155
Schnitzer, R. D.	158	Shapiro, L. N.	158
Scholl, M. L. L.	158, 185	Shapiro, P. B.	203
Schramm, A. J.	190	Shapiro, R.	203
Schremly, J. A.	166	Shattuck, G. B.	181
Schuknecht, H. F.	213	Shattuck, G. C.	269
Schulman, J., Jr.	135	Shaw, H. A.	13
Schulz, M. D.	174	Shaw, J. H.	107, 256
Schulz, R. Z.	115	Shaw, R. S.	198
Schultz, S. G.	101	Shea, S. M.	116
Schupack, M. B.	166	Sheddan, F. G., Jr.	201
Schuster, S. R.	200	Shein, H. M.	111
Schutzenberger, M.-P.	193	Shefer, S.	106
Schwab, R. S.	151	Sheldon, C. S.	161

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Shelton, W. R.	161	Smith, S. R.	161
Sherman, L. J.	155	Smith, T. R.	172
Sherry, S. N.	180	Smith-Petersen, M.	211
Sherwin, R. P.	117	Snedeker, L.	180
Sherwood, D. W.	178	Snider, M.	182
Shillito, J., Jr.	203	Sniffen, R. C.	115
Shimao, K.	149	Snodgrass, P. J.	135
Shimizu, Y.	141	Snyder, B. R.	158
Shor, R. E.	155	Snyder, F. F.	96, 187
Shore, M. F.	161	*Snyder, J. C.	87, 111, 118
Shore, S.	214	Snyder, J. G.	135
Short, C. L.	129	Socransky, S.	256
Shrand, H.	180	Soeldner, J. S.	141
Shriber, W. J.	131	Sohier, W. D., Jr.	135
Shuter, E. R.	166	Solomon, A. K.	103
Shwachman, H.	177	Solomon, H. C.	269
Sidel, V. W.	142	Solomon, P.	151
Sidley, N. T.	161	Soloway, A. H.	199
Sidman, M.	151	Sommers, S. C.	115
Sidman, R. L.	98, 151, 153	Sorokin, S. P.	97
Siegel, G. L.	181	Soskin, W. F.	155
Siegfried, J. C.	206	Sosman, J. L.	175
Sifneos, P. E.	153	Soto, E. F.	163
Silbert, C. K.	142	Sotos, J. F.	180
Silbert, J. E.	141	Spangler, A. S.	149
Silver, E. I.	243	Spargo, J. A.	180
Silverman, S.	151	Spatz, E. L.	161
Simon, M.	175	Speck, M.	256
Singer, A. M.	141	Spector, A.	174
Singer, D. L.	137	Speers, W. J., Jr.	12
Singer, J. G.	158	Spencer, K.	155
Slater, E. M.	203	Spiegel, J. P.	151
Sloane, A. E.	172	*Spielman, A.	120
Slone, D.	183	Spiro, M. J.	132
Smith, C., Jr.	141	Spiro, R. G.	132
Smith, C. A.	177	Spivak, M.	155
Smith, D. H.	184	Springer, J.	256
Smith, E. E.	206	Stachiewicz, D. M.	163
Smith, G. M.	198	Stahler, S.	190
Smith, G. T.	118	Stalvey, H. D.	158
Smith, G. V. S.	187	Stanbury, J. B.	127
Smith, H. D.	10	Standish, C. T.	153
Smith, L. H., Jr.	129	Stanton, A. H.	151
Smith, O. W.	188	*Stare, F. J.	107
Smith, Richard M.	269	Starkey, G. W. B.	198
Smith, Robert M.	198	Starobin, O. E.	137

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Starr, A. M.	203	Sturgis, G. P.	131
Starr, A.	201	Sturgis, S. H.	187
Stauffer, R. E.	161	Sturnick, M. I.	131
Stearns, N. S.	135	Sturrock, J. B.	161
Stearns, S.	131	Suer, W. D.	176
Stein, H. J.	135	Suh, S. M.	183
Stein, M.	135	Sullivan, G. L., Jr.	172
Stein, S. W.	135	Sullivan, J. F.	158
Steinberg, L. A.	135	Sullivan, L. W.	141
Steinhauer, B. W.	137	Sutton, C. H.	206
Steinke, J.	141	Suyemoto, J.	116
Stellar, L. I.	135	Swanson, L. T.	256
Stephenson, M. L.	133	Swartz, J. H.	148
Stern, B. D.	256	Swartz, M. N.	131, 185
Sternbach, R. A.	163	Sweeney, E. A.	256
Stetson, J. B.	201	Sweet, R. H.	196
Stetson, R. P.	129	Sweet, W. H.	197
Stevens, P. M.	141	Swiderski, J. T.	183
Steward, V. W.	166	Szabo, G.	148
Stewart, J. D.	12	Szulman, A. E.	116
Stewart, R. C.	137	Taber, E.	97
Stillman, J. S., Jr.	131	Tachdjian, M. O.	212
Stitnimankarn, T.	117	Taft, E. B.	114, 143
Stock, M.	158	Taft, G. H.	181
Stocking, M. R.	166	Taft, P. D.	116
Stoeckle, J. D.	131	Tafur, A.	167
Stoffyn, A. M.	133	Taghavy, A.	167
Stoffyn, P. J.	105	Taichman, N. S.	256
Stokes, J., 3d	193	Tainter, M. L.	12
Stokey, R. P.	125	Takahashi, H.	149
Stone, A. A.	158	Takahashi, S.	141
Stone, B. H.	189	Takeuchi, A.	118
Stone, W. E.	161	Talbot, F. B.	269
Stone, W., Jr.	173	Talbot, H. S.	199
Stoops, W. R.	256	Talbot, N. B.	177
Strang, L. B.	183	Talkov, R. H.	135
Strang, R. H.	183	Talland, G. A.	155
Stratton, F. C.	125	Tanaka, K.	117
Stratton, K.	141	Tandon, R.	184
Strauss, E. W.	115	Tanzer, M. L.	141
Strauss, H. S.	183	Tartakoff, H. H.	158
Strauss, J. S.	167	Tashjian, A. H., Jr.	256
Strauss, M. B.	131	Tassie, J. A.	203
Streeter, E.	10	Taube, I.	167
Strittmatter, C. F., 4th	103	Taylor, E. M.	179
Strock, M. S.	256	Taylor, J. B.	256
Stults, H. B., Jr.	181	Taylor, W. J.	201

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Taymor, M. L.	188	Ulfelder, H.	187
Teller, W. M.	184	Ulin, R.	211
Tenney, B., Jr.	187	Ullian, R. B.	142
Thanik, K. D.	256	Ulmer, D. D.	135
Thoma, K. H.	269	Umansky, I.	184
Thomas, D. P.	141	Urrutia, G.	141
Thomas, S.	101	Uzman, B. B. G.	115
Thompson, C. W., Jr.	256	Uzman, L. L.	151
Thompson, G. E.	256	Vail, D. T.	172
Thomson, C. P.	163	Vaillant, G. E.	167
Thorburn, G. D.	101	Valenstein, A. F.	153
Thorn, G. W.	15, 88, 126	Vallee, B. L.	127
Thorndike, A.	198	van Amerongen, S. T.	161
Thrupp, L. D.	111, 144	Van Buskirk, D.	167
Tilley, R. F.	148	Vance, V. K.	133
Timberlake, W. H.	98, 153	Vandam, L. D.	196
Tisdale, W. A.	131	van den Noort, S.	163
Toch, R.	180	Vanderbilt, H. S.	12
Todd, D. P.	198	Vanderpol, M.	161
Tokita, K.	141	VanDyke, W. M.	181
Toll, K. van S.	158	van Gelder, N. M.	123
Tolman, M. M.	148	Van Houte, J.	256
Tomchik, F. S.	176	Van Leeuwen, M. J.	256
Tomkiewicz, Z. M.	118	Vawter, G. F.	115
Torvik, A.	163	Velle, W. M.	141
Travis, D. F.	212	Verhoeff, F. H.	269
Treble, D. H.	106	Verner, I. R.	201
Trendelenburg, U. G.	122	Vickery, A. L., Jr.	114
Trevett, L. D.	153	Victor, M.	151
Trieger, N.	256	Villavicencio, J. L.	206
Tristan, M. P.	181	Villee, C. A., Jr.	103
Troen, P.	129	Visakorpi, J. K.	184
Trott, A. W.	211	Visser, H. K. A.	184
Trum, B. F.	114	Vogel, J. J.	256
Truman, J. T.	184	Volker, J. F.	12
Trunnell, T. L.	167	Von Wartburg, J. P.	141
Tucker, A. W., Jr.	189	Vorenberg, J.	161
Tucker, D. A.	13, 14, 135	Wacker, W. E. C.	131
Tullis, J. L.	131	Waddell, W. R.	198
Tunny, J. C., Jr.	125	Waksman, B. H.	109, 118
Turndorf, H.	203	Wald, S. G.	256
Turner, J., 2d	190	Walker, D. H.	269
Tuthill, J. W. G.	180	Walker, G. G.	12
Tyler, H. R.	153, 158	Walker, J. E. C.	135
Tyzzer, E. E.	269	Walker, J. T., Jr.	12
Udaka, S.	111	Walker, P. H.	203
Uhle, F. C.	122	Walker, R. S.	133

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Wallace, J.	180	Wender, P. H.	167
Wallach, D. F. H.	104	Wermer, H.	153
Wallach, H. D.	161	Wermer, O. S.	136
Waller, M. B.	123	*Wesselhoeft, C.	194
Walter, C. W.	197	Wessler, S.	129
Walter, M. M., Jr.	161	West, F. J.	173
Walzer, S. G.	203	Wexler, D.	158
Warren, R.	196	Weylman, W. T.	176
Warren, S.	113	Wheeler, E. O.	136
Warthin, T. A.	127	Wheeler, H. J.	181
Washburn, S. L.	161	Wheeler, H. B.	201
Watkins, A. L.	129	Wheelock, F. C., Jr.	201
Watson, B. K.	110	Whiskin, F. E.	161
Watson, P. L.	158	White, A. M.	10
Watts, R.	12	White, C. J.	269
Weber, A. L.	176	White, C. W., Jr.	198
Webster, E. W.	174, 175	White, H. J.	116
Webster, H. D.	158	White, J. C.	269
Webster, T. G.	158	White, M. F.	201
Wechsler, H.	156	White, P. H.	257
Wegner, K. H.	118	Whitfield, T. J., 3d	182
Wegner, W. R.	198	Whitman, F. B.	10
Weil, J. L.	161	Whitney, J. B.	174
Weille, F. L.	213	Wicks, W. D.	107
Weinberger, J. L.	158	Wickson, M. E.	101
Weiner, A. E.	189	Wiedman, M.	173
Weiner, N.	122	Wiemers, K.	199
Weinfeld, M. S.	212	Wiesel, T. N.	122
Weinstein, L.	179	Wiggins, L. G.	87
Weis, E. I.	184	Wilgram, G. F.	148
Weisberger, D.	256	Wilkins, E. W., Jr.	201
Weisman, A. D.	152	Wilkins, R. S.	10
Weiss, A. D.	167	Willer, L. H.	161
Weiss, J. B.	201	Williams, A. T.	257
Weiss, J. L.	156	Williams, C.	136
Welch, C. E.	197	Williams, G. H.	214
Welch, K. J.	201	Williams, H. W., Jr.	167
Weliky, I.	105, 143	Williams, J. A.	201
Wellensiek, H.-J.	110	Williams, J. H., Jr.	141
*Weller, T. H.	111, 120, 185	Williams, J. P.	206
Wellock, W. D.	257	Williamson, J. R.	141
Wells, H.	122, 257	Wilson, R. E.	201
Wells, J. C., Jr.	135	Wilson, R. V.	163
Wells, L. D.	158	Wilson, T. H.	15, 100
Wells, R. E., Jr.	131	Wilson, W. E.	212
Weltner, J. S.	167	Winchester, R.	97

* SPH Faculty.

OFFICERS OF ADMINISTRATION AND INSTRUCTION

	PAGE		PAGE
Winer, B. M.	136	Yahia, C.	190
Winkler, G. F.	163	Yakovlev, P. I.	269
Winter, W. D., Jr.	180	Yasuda, K.	111
Winthrop, R.	12	Yatsushashi, M.	201
Wise, H. M.	207	Yen, P. K.-J.	257
Wittenborg, M. H.	174	Yerganian, G.	115
Wittner, M.	118	Yip, S. Y.	149
Witzleben, C. L.	118	Yorshis, M.	161
Woerner, T. E.	141	Young, G. F.	167
Wolbach, W. W.	12	Younge, P. A.	188
Wolf, E. G. G.	172	Yu, C.-T.	142
Wolf, M. K.	163	Yurchak, P. M.	142
Wolfe, H. J.	118	Zacharias, L. R.	172
Wolff, L.	127	Zackin, S. J.	257
Wolff, P. H.	153, 185	Zamcheck, N.	131
Wolff, R.	136	Zamecnik, P. C.	126
Wolff, R. H.	167	Zanartu, J. A.	188
Wolman, H. M.	161	Zand, R.	106
Wolterbeek, J. C.	163	Zaroff, L. I.	206
Wong, H.	133	Zarsky, E. L.	161
Wood, C. H.	12	Zaslow, S. L.	167
Woods, J. B.	167	Zaudy, E. C.	180
Woodward, E., Jr.	137	Zaver, A. G.	180
Wool, M. L.	161	Zervas, N. T.	207
*Worcester, J.	194	Zettas, J. P.	212
Wuerker, R. B.	101	Zetzel, E. R.	152
Wulsin, H. E.	161	Zetzel, L.	127
Wurtman, R. J.	191	Zilbach, J. J.	161
Wuthier, R. E.	257	Zinberg, N. E.	158
Wyman, S. M.	175	Ziskind, A.	182
Wyshak, G. H.	257	Ziv, B.	173
		Zoll, P. M.	127

* SPH Faculty.

INDEX

Absence, Leaves of	42	Degree, Requirements for Doctor of Dental Medicine	44
Academic Calendar	6	Degree, Requirements for Doctor of Medicine	43
Administrative Board	14	Degrees in the Medical Sciences, Requirements for ...	45
Administrative Officers	13	Degrees of Doctor of Dental Medicine Conferred in June 1961	264
Admission, Foreign Students ..	37	Degrees of Doctor of Medicine Conferred in June 1961	222
Admission, Requirements for ..	31	Dental School, Scholarships ..	63
Admission to Advanced Standing in the Dental School ...	36	Dental Medicine, School of ..	28
Admission to Advanced Standing in the Medical School	35	Dental Medicine, School of, Teaching Staff	253
Advanced Standing, Medical Schools Represented by Students who Entered with ...	252	Dental School, Student Enrollment 1961-62	264
Anatomy, Department of	96	Dental School, Student Enrollment Summary 1961-62	266
Announcement of Courses in the Dental School	257	Dermatology, Department of ..	148
Announcement of Courses in the Medical School	90	Dining Hall	52
Bacteriology, Department of ..	108	Dormitory	51
Beth Israel Hospital	23	Elective Courses, Listing of. See Individual Department	
Biological Chemistry, Department of	102	Elective and Voluntary Courses, General Description of	94
Board of Overseers	10	Emeriti Professors	268
Boston City Hospital	22	Employment, Student	48
Boston Lying-in Hospital	26	Enrollment, Dental School 1961-62	264
Buildings, Description of	18	Enrollment, Medical School 1961-62	233
Calendar, Academic	6	Examination, General, for Degree Candidates	41
Cancer Commission of Harvard University	87	Fees and Expenses	49
Children's Hospital Medical Center	24	Fellowships	53
Colleges Represented by Students in the Dental School	267	Fellowships and Scholarships ..	53
Colleges Represented by Students in the Medical School	251	Fellowships and Scholarships in other Departments of the University	65
Committee to Visit the Medical and Dental Schools	12	Foreign Students, Admission Procedure	37
Corporation, The	9		
Courses for Graduates	88		
Curriculum, General Description of. See Announcement of Courses			

INDEX

Foreign Students, Information for	38	Medicine, Department of	126
Free Hospital for Women	26	Microscopes	49
General Examination for Degree Candidates	41	Museum, Warren Anatomical	30
General Plan of the First Two Years	90	National Scholarships, Dental School	63
General Plan of the Third and Fourth Years	93	National Scholarships, Medical School	57
General Regulations	40	Neurology	167
Gynecology. <i>See</i> Obstetrics and Gynecology, Department of		Neurology and Psychiatry, Department of	150
Health Service, Student	52	Neuropathology, 168. <i>See also</i> Neurology and Psychiatry	
History and Organization of the Medical School	16	New England Deaconess Hospital	27
Hospitals	19	Obstetrics and Gynecology, Department of	187
Howe Laboratory of Ophthalmology	173	Ophthalmology, Department of	171
Index, Officers of Administration and Instruction	270	Ophthalmology, Howe Laboratory of	173
Internship Appointments, Class of 1961	226	Orthopedic Surgery, Department of	210
Leaves of Absence	42	Otology and Laryngology, Department of	213
Lectureships	86	Overseers, Board of	10
Legal Medicine, Department of	125	Pathology, Department of	113
Libraries	29	Pediatrics, Department of	177
Loan Funds in the Dental School	83	Peter Bent Brigham Hospital	22
Loan Funds in the Medical School	81	Pharmacology, Department of	121
Massachusetts Eye and Ear Infirmary	21	Physiology, Department of ...	100
Massachusetts General Hospital	19	President and Fellows of Harvard College	9
Massachusetts Mental Health Center	26	Preventive Medicine, Department of	193
McLean Hospital	21	Prizes, Dental School	83
Medical College Admission Test	35	Prizes, Medical School	82
Medical School, Student Enrollment Summary 1961-62 .	250	Professors Emeriti	268
Medical Schools Represented by Students who Entered Medical School with Advanced Standing	252	Promotion Boards	40
Medical Sciences, Division of	45	Promotion, Rules Governing .	41
Medical Sciences, Higher Degrees in	45	Psychiatry, 169. <i>See also</i> Neurology and Psychiatry	
		Public Health, School of	89
		Radiology, Department of	174
		Regulations, General	40
		Research, Fellowships for	53
		Research Funds	87
		Research, Opportunities for, 89. <i>See also</i> Tutorial Program	


INDEX

Rules Governing Promotion ..	41	Summary of Students Enrolled	
Schedules and Registration,		in Medical School 1961-62 ..	250
Tabular View	217	Surgery, Department of	196
Scholarships and Fellowships .	53	Tabular View of Schedules and	
Scholarships and Fellowships in		Registration	217
other Departments of the		Tropical Public Health, De-	
University	65	partment of	120
Scholarships, Dental School ...	63	Tutorial Program and Student	
Scholarships, Dental School		Research	94
National	63	Undergraduate Assembly	90
Scholarships, Medical School .	57	Vanderbilt Halls. <i>See</i> Dormi-	
Scholarships, Medical School		tory	
National	57	Visiting Committee	12
Servicemen, Admission Proce-		Voluntary and Elective Courses,	
dure	36	General Description of	94
Special Students, Admission		Voluntary Course, Dental	
Procedure	39	School	215
Student Health Service	52	Voluntary Courses, Listing of.	
Students Enrolled in Dental		<i>See</i> Individual Department	
School 1961-62	264	Warren Anatomical Museum	30
Students Enrolled in Medical		West Roxbury Veterans Ad-	
School 1961-62	233	ministration Hospital	27
Summary of Students Enrolled		Withdrawal from the Medical	
in Dental School 1961-62 ..	266	School	42





JUN 1945

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